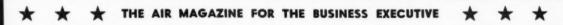
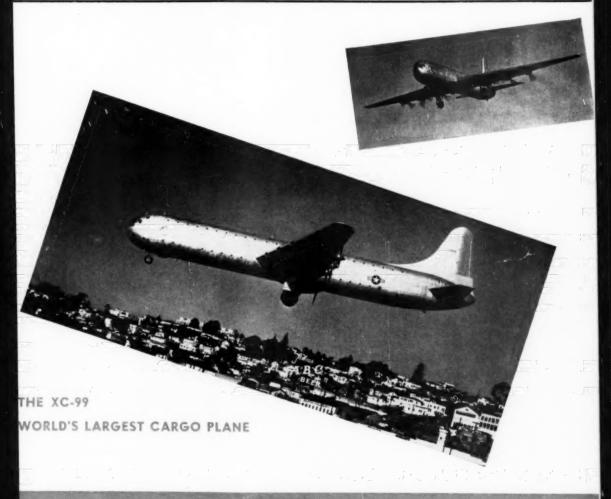
BUSINESS

TRANSPORTATION

VOL. 21, No. 3

SEPTEMBER, 1952





Including AIR COMMERCE

Preirie Airline • Cergo Glant • Milestone for Air Express • Progress Report • An Airfreight Story
Thore's Meney in Airfreight • Ground Handling for Air Cargo • Marketing Advantages of Airfreight
Progress in Continental's Cargo Services

THE WORLD'S FIRST AND ONLY AIR CARGO MAGAZINE

New Clipper Cargo service between Europe and the U.S.A.





MEMBER OF CONTROLLED CIRCULATION AUDIT, INC.

AIR TRANSPORTATION, published once each month, thoroughly covers the entire air cargo industry for the benefit of all those engaged in shipping and handling domestic and international air freight, air express, and air parcel post, as well as using the domestic and international air mail services. Included in AIR TRANSPORTATION'S wide coverage are: air shipping, cargoplane development, rates, packaging, materials handling, documentation, air cargo terminal development, insurance, routing, interline procedures, new equipment, commercial airlines, military air transport service, air freight forwarders, personnel and business air travel.

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Marketing Advantages of Airfreight-Part One

by Dwight L. Gentry

Associate Professor, Business Administration, Wake Forest College

THIS IS THE FIRST OF A SERIES OF ARTICLES BY PROFESSOR GENTRY THAT WILL APPEAR IN AIR TRANSPORTATION. THESE ARTICLES ARE BASED ON A DOCTORAL THESIS CALLED "AIR CARGO TRANSPORTATION AND ITS INFLUENCE ON MARKETING" COMPLETED AT THE UNIVERSITY OF ILLINOIS. IN THIS, AND THE ARTICLES TO FOLLOW, PROF. GENTRY EXPLORES THE AIRFREIGHT INDUSTRY. HIS FINDINGS SHOULD PROVE INTERESTING AND BENEFICIAL TO THE READERS OF THIS PUBLICATION.

S INCE equality of rates between air and surface transportation is not regarded as likely in the near future, attention turns to the characteristics of air cargo which enable it to compete with the express forms of surface carriage. These characteristics find expression in the marketing advantages they offer. One of the most widely accepted definitions of marketing is the following:

Marketing includes all the activities involved in the creation of place, time, and possession utilities. Place utility is created when goods or services are available at the places they are needed; time utility, when they are present at the time they are needed; and possession utility, when they are transferred to those who need them.

In respect to commodities qualifying as air candidates, the airplane has demonstrated its ability to contribute to the creation of the above utilities. It might be added also that the airplane contributes to the creation of form utility by enabling the delivery of perishables in a high state of preservation. A product becomes an air candidate because it is able to utilize the marketing advantages afforded by air transportation. Therefore, a study of the marketing advantages brought about by air shipping would logically begin by analyzing the advantages claimed for air cargo service by those now using it. If light can be thrown on the reasons why certain commodities are now transported by air, avenues may be opened for an ever-increasing list of air candidates. The inherent nature of the product alone is not enough to determine if it might be best moved by air. The use to which the product is put, the circum-



stances surrounding its present distribution, and the adequacy of the present channels are considerations which must enter into an evaluation of air shipping and its influence on marketing.

MARKETING ADVANTAGES

In the postwar period numerous marketing advantages have been attributed to air transportation. As rates decrease, new products become air candidates and new marketing advantages emerge. In evaluating the advantages, it was thought that some form of classification would be beneficial in judging their worth. From a marketing standpoint a possible classification of advantages might be based on the contributions which air transportation has made, and may make, toward solving the problems of distribution. The con-

tributions of air cargo transportation may be judged on the basis of three inquiries:

- 1. Does it aid in expanding the
- 2. Does it aid in rendering better customer service?
- 3. Does it contribute to greater economy in marketing?

Advocates of air cargo service as a form of property transportation cite many examples indicative of an affirmative answer to these questions. Such examples are cited in regard to products that are present or potential air candidates. A discussion of the advantages of air movement excludes a majority of the products of forests and mines and bulk commodities in general. By restricting the analysis to the marketing of present and potential air candidates, a classification of the advantages may be made along the lines of the questions posed:

Classification of Advantages:

- I. Advantages aiding in the expansion of the market.
 - a. Permits the establishment of broader markets.
 - b. Extends the source of supply.c. Requires smaller investments.
 - d. Enables the distributor to meet peak demand.
 - Helps to stabilize price by rapid transfer of goods from one point to another.
 - f. Enables the delivery of a high quality product.
 - g. Facilitates the marketing of style goods.
 - h. Enables an increased sales volume through timely merchandising and better service. (Continued on Page 29)

MILESTONE for AIR EXPRESS

HEN AN INDUSTRY reaches the 25 year mark some of those who have been in it for a long time might think of it as old and settled. But the many new people who have come into the business in later years are imbued with the limitless possibilities still opening up before them.

On September 1, 1952, the air express industry as well as the Air Express Division of Railway Express Agency reached the age of 25 years. On that date in 1927 the first airlines began flying airmail and air express



on regular schedules. This was made possible under the provisions of the Kelly Air Mail Act, enacted in 1925, which encouraged the formation of the first scheduled airlines by permitting airmail to be carried by private contractors. The Express Company held contracts with each of the new airlines for carrying air express; thus making the inaugurations of our national air transport system and the air express industry simultaneous.

Air express was carried by only four airlines in the beginning. They were Colonial Air Transport between Boston and New York; National Air Transport between New York and Chicago and between Chicago and Dallas; Boeing Air Transport between Chicago and San Francisco and Western Air Express between Salt Lake City and Los Angeles. Total mileage of the first air routes was 4,541 miles. Today air express travels on 32 airlines over more than 106,000 miles of airways in the United States and is shipped to Alaska, Hawaii, Cuba, Mexico and Central America.

In 1928 the first full year of operation the total number of air express shipments carried was 17,000 and in 1951 there were 4,300,000 with a revenue of about thirty million dollars. In 1927 it took 33 hours to fly from coast to coast. Today the distance is covered in 10 hours. In 1927 there were 26 cities on the airways and today there are over 1100 air express offices in airport cities. These are closely coordinated with rail express service so that 23,000 communities now have the benefit of air express.

A question that has been asked very often over the years is "What is shipped by air express?" At first the service was used by many for purely emergency reasons. There is still wide use of air express to meet emergencies but it has also become an important part of the distribution system of American business. Nowhere else in the world is production so great and continuous as in America and nowhere else is competition for business maintained at such a high pitch.

There are many articles of merchandise shipped by air express which are really perishable although they are not often classified in that category. Air express compartments see many shipments of the "wonder drugs", radio isotopes, biologicals, serums, live animals and other items which either have short lives or must be carefully protected at all times. They are easily recognized as perishable. One of the "perishable" articles that travels in great volume by air express is women's style merchandise. A new hat or dress placed on display a day or even a few hours ahead of the competition is a "beat". It gets the buyer's attention first and commands a premium price. Long gone are the days when the ladies of small towns had to wait weeks before the newest styles arrived for their selection. They are now dressed in the latest styles as soon as the customers who live in the fashion centers where the garments originate and are manufactured.

The use of air express in the merchandising field enables wholesalers and retailers to maintain low inventories and rapid turnover of their stock. For example, if an out-of-stock automobile part is needed by a customer the dealer can telephone or telgraph the manufacturer to send it by air express. Articles are often sent directly to the customer's home by the special delivery service Railway Express Agency maintains for air express shipments in addition to special pickup service.

The printing industry as well as publishing and advertising houses utilize air express to meet ever present deadlines. The radio and television industry uses the service. Radio broadcast records and kinescopes of the leading TV chain shows are shipped air express immediately to the broadcast stations off the networks and delivered in time to meet definite program dates.

The machinery and hardware fields have long been users of air express and production lines threatened with stoppage for shortage of materials or a machinery breakdown have been kept running by the timely arrival of needed items to remedy the situation The time and money saved by averting plant tie-ups through the arrival of needed equipment by air express is incalculable.

Air express service includes special pickup from the shipper and special delivery to the consignee by the Air Express Division of Railway Express



Agency: Shipments are loaded on the first flights going toward their destinations. They depart from the airport of origin, are transferred when necessary to any one of the other scheduled airlines and given to Railway Express Agency for delivery at destination.

As most of America is in a hurry a good part of the time, especially in the business world, the partnership of the airplane with industry through the (Concluded on Page 32)

SEPTEMBER 1952-PAGE 5

PRAIRIE AIRLINE

CROSS THE BROAD EXPANSE of the Canadian Prairie provinces which are arched from Calgary and Edmonton to Winnipeg by the North Star Service of Trans-Canada Air Lines, there exists literally a second airline. And strangely enough the second line is also operated by TCA. Compared to the North Star service on the gigantic transcontinental system, the prairie airline with its workhorse DC-3's is a folksy, grass-roots operation.

It serves the small but important prairie cities of the circuit much as a milk-train does its job for its semi-urban clientele. The cities with such illustrious names as Brandon. Yorkton, Regina, Swift Current, Medicine Hat and Lethbridge, are its home ground. And along its length of 1,270 miles, the residents are on an air line cut to their pattern, which brings fast travel to their doorsteps and keeps them tied to the airmail services of the world.

It is a fact that the people in the

three sprawling prairie provinces. Manitoba, Saskatchewan and Alberta along with those who live on the west slope of the Rockies in British Columbia are enthusiastic users of air transportation. both mainline and prairie services. Although in aggregate they represent only a quarter of Canada's population, they made up nearly 40% of the close to 400,000 passengers boarded by TCA over its entire North American system during the first five months of 1952. In addition they contributed to more than 26% of the full 1.900,000 commodity ton miles flown by the airlines during the same period proving the worth of air cargo where problems of distance have to be considered in every business transaction.

Eastern terminus of the prairie airline is the prairie capital of Canada. Winnipeg, which sprawls across the Red River, is the gateway to the west and through it funnels all transcontinental flights of TCA. At the Winnipeg Airport with its inadequate accommodation for the traffic it is forced to handle, TCA personnel cope with the unprecedented business that is hurrying to the airline.

Five daily transcontinental flights. each with its 40 passenger potential and more often with full loads than not. pour through "the Peg" in each direction. And from the centre of the activity somewhat like a ruffled yet dignified grouse escaping a hurricane. emanates the prairie special. A good percentage of its 21 seats will be filled and its cargo compartment may hold anything from a crate of baby chicks to a new part for a threshing machine. Currently the flight leaves Winnipeg at 4:15 p.m. (CST) and arrives in Edmonton at the western end of its arc at 11:59 p.m. (MST). The Eastbound

(Continued on Page 30)



PAGE 6-AIR TRANSPORTATION-Air Commerce

To be able to do many jobs is one of the requisites for working at a prairie station. Here station manager Russ Alexander takes care of baggage and mail loading with assistant Nick Kosowich as just one of his many duties. When he has nothing else to do, Alexander acts as the airline's local traffic representative at Brandon, too.

Cargo GIANT

Huge, Roomy, and, roughly speaking, shaped like a cigar, the XC-99 is known as the world's largest land plane. An all-cargo version of Consolidated Vultee's gigantic B-36 long range bomber, the XC-99 is all of 19½ feet longer than the B-36, and it can carry a payload of 50 tons or more.

On a flight from San Diego to Kelly Air Force Base, the plane actually lifted all of 101,266 pounds of cargo. Another time it flew the complete ground equipment of a full tactical wing nonstop from coast to coast. Such is the amazing ability of this cargo plane.

Everything is stupendous about this super-transport; its size, its payload, its performance. For size: its wing span is 230 feet, almost as long as a city block. Besides being longer than the B-36, it is also 10 feet higher. Its tail is more than five stories high-

Put two men in front of a five story building, and you wouldn't look twice at them. Put them in front of a five story high-tail, as shown here, and you get an idea of the size of Convair's gigantic all-cargo XC-99. That tail stands an impressive 571/2 feet high.

57½ feet—its six pusher type engines develop as much horsepower as five locomotives, and it contains over a million rivets, 25 miles of wiring, and more than 60,000 square feet of sheet metal.

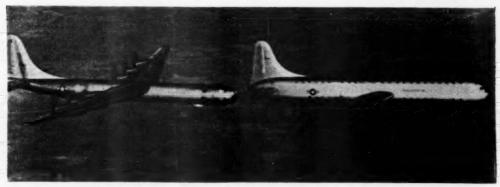
For performance: within nine months, it flew approximately 5,000,000 ton miles carrying supplies and equipment, nearly half of which was used in support work in the Korean airlift. In close to 600 hours of flight, it carried nearly 7,000,000 pounds of air cargo. During the month of January, of this year, it flew 15 cargo flights over a period of 117 hours and 15 minutes. The total amount of cargo car



ried by the XC-99 that month came to 1.123,000 pounds.

Impressive as these figures are, impressive also is the fact that direct flight costs of the airplane are quoted at three cents per ton mile! Direct flights costs duing last January, however, came to 29 cents per ton mile. Convair's big double-decked transport has been around for quite some time, a fact which may surprise many people, since the XC-99 hasn't been overly publicized. Preliminary studies for the XC-99 were made as far back as 1942, and the formal contract for developing an experimental XC-99 was

(Continued on Page 31)



Sisters in flight—the B-36 bomber and the XC-99 all-cargo transport. The sisters don't look too much alike, that's because the cargo plane is 19½ feet longer than the other and is built for carrying bulky loads. The XC-99 is the world's largest land plane, and it has a payload of 100,000 pounds! In their various capacities, both planes serve the Strategic Air Command with a high degree of efficiency. Cargo is surely moving up in the world!

0 0

Proper sales approach, better equipment and handling—these are needed to keep air cargo growing

Progress Report

By Dr. Albert Plesman, president, KLM Royal Dutch Airlines

N 1919, the airlines performed 124,274 ton miles, of which virtually none was cargo.

In 1929, they performed 15,434,-250 ton miles, of which 10% were cargo.

In 1938, they performed 142,-915,100 ton miles, of which 7.5% were cargo.

In 1948, they performed 1,707,-667,500 ton miles, of which 17% were cargo.

In 1950, they performed 2,236,-932,000 ton miles, of which 21% were cargo.

THE DEVELOPMENT of air cargo shows a promising upward trend. If we take the figures from 1919 up till now, it is interesting to note the constantly increasing percentage of ton miles sold in aviation which cargo represents.

When we look at the other quantities as well, we shall see that it is cargo which shows the most rapid increase over all other categories of payload transported by air. However, it is necessary to retain our sense of realism when studying the quantitative outlook. We cannot easily compare these figures with the total movement of cargo by all other means of transportation. For some routes, however, figures are available and there you will see that the total volume is equal to some 40 million tons per year of which air corgo represents a fraction of one per cent. In spite of all the pleasant forecasts, therefore, it is common sense to realize that at this moment air cargo is still in its infancy. A great deal of work will still have to be done to enable this traffic category to increase in volume.

Now, when we look at cargo from the point of view of the shippers, to determine what their chances are in the transportation market it is important to note the basic factors that will determine their choice as a means of transportation. Shippers will first of all consider whether there is a connection to the point of destination. Secondly, they will compare the available time for delivery with the time taken up by the transportation. Thirdly, they will have to consider whether the goods to be shipped can be sent by air in view of their nature, dimension and weight, for the means of transportation necessarily gives rise to certain limitations. And last, but not least, they will wish to know how the costs of the different means of transportation compare. "Costs" does not only mean cost of



transportation, but includes extra charges for loading and unloading, wharfage and port duties, insurance premiums, packing costs, etc., etc.

A Rational View of Air Cargo

It stands to reason, therefore, that all these points compel an individual firm to study its transport problem with a rational mind. In view of its rapid growth so far, it is clear that air cargo apparently does supply, with increasing frequency, the right answers to all these points under consideration. Nevertheless, it is felt that the users of our service to date have decided to have their cargo transported by air mainly on account of the second point, the time available for delivering the goods. In other words, they are buying our speed.

The time element in air cargo is frequently determined by the nature of the goods (perishables, fruit, vegetables, etc.); in other cases, by an emergency factor (spare parts for ships or factories); or even by the terms of contracts which stipulate that the first

deliveries will go by air and that the rest of the goods under contract will be shipped afterwards by other means.

A Premium Price for Air Cargo

T IS IMPORTANT that all air carriers take note of this special point. We sell a saving in time, and that basic argument will help us to promote a progress in air cargo. The more the air industry can sell the idea of bringing markets nearer to the home base of production-by using the air routes -the more successful it will be in promoting the growth of air cargo. It sometimes happens that when we try to sell air cargo to a new customer, the cost factor is looked at first. In my opinion this is essentially wrong, for it induces a firm to make the wrong kind of comparisons. We know, of course, that shipping people are ever ready to point to the high cost of air cargo as compared with surface transportation. Nevertheless, it is felt that what air carriers offer in the field of transportation does possess its own characteristics, and that also means its own price. We can afford to ask for a higher price, because we offer something special.

Reducing Our Own Costs

OF COURSE, THE PRICE We ask is very much dependent on the technique we now use. It goes without saying. however, that as the costs per tonmile available go down, we shall be able to lower our rates accordingly. And this means that as soon as this rate reduction has occurred, we shall be able to bring a larger group of goods within the reach of air cargo. The result will be that we shall be able to add an increasing extra amount of tonnage to the structural growth of our payload in this line. This deserves to be repeated: a decrease in air cargo rates depends on the downward trend (Continued on Page 32)

PAGE 8-AIR TRANSPORTATION-Air Commerce



GROUND HANDLING

for

AIR CARGO

PEED ON THE GROUND as in the air is a necessary part of air cargo transportation. Quite often, air cargo spends a lot of time on the ground, either before or after its flight. Sometimes this is due to the fact that cargo space is not readily available on the transports. Sometimes also there is the need for warehousing. There have even been many cases wherein banks have failed to honor letters of credit because the airfreight has arrived too far in advance of the necessary documents. Whatever the reason. air cargo does spend considerable time on the ground.

Some of this is unavoidable, as for instance, in the above mentioned need for warehousing, but others can, and in due time will be rectified to a greater extent

Speed and safety in moving cargo from the sheds to the plane or from the plane into the sheds are the concern of the cargo handling crews at either the airport or the freight office. Speed and safety also are the main concern of manufacturers of ground handling equipment and allied industries. Most especially, they are the concern of the makers of forklift trucks; for these trucks appear to be most frequently in use at the airports, being versatile and adaptable to a variety of cargo loading requirements.

But the allied industries—those whose concern is directly or indirectly also cargo—have not been laging behind in devising newer, better and safer methods of getting air cargo to or from the (Continued on Page 32)

Now that certain sections of the Air Force have found that packing clothing into drums is excellent for shipping, it is likely that more and more drums will become airborne. This newly developed sling, with its 1000 pound capacity, can be used for general purpsue loading or unloading of drums, barrels or kegs, all of which are now useful for "canning" clothing. This method bears watching. Credit Palmer-Shile for the sling.



Size is definitely no object in air cargo. Loads of unusual length are handled with sturdy fork extensions. Generally they will be found handling such loads as steel sheets, skids and boxes of considerable length. Quickly and easily removed, the finger-like extensions still allow standard maneuverability to the fork trucks. A locking feature of the extensions prevents forward or backward movement, and side flanges hold them in place laterally. "Outsized" cargo in problem at the airports with ground handling equipment so adaptable. A product of Towmotor Corporation.

Consolidated Industries has developed on automatic safety device to bring the power truck to an instant stop in case of operator failure. Useful around airports, this sturdy vehicle presents 21 square feet of loading surface and removable 24" stanchions that permit the carrying of long objects, when necessary. Practically non-destructible, it is proving fine for conveyor belt loading.



Ground handling has to be geared to the speed of air transportation. A freight plane pulls up, it has to be loaded or unloaded as quickly as possible. Ground speeds are increased considerably when a fork truck, such as this, has its speed, direction and braking accamplished with but one master control lever. With a choice of four speeds forward or reverse, and an ability to be decelerated and stopped without the use of the mechanical brake, ground handling time for air cargo icut to a minimum. From Lewis-Shepard.



AN AIRFREIGHT STORY

By Don Royer, sales engineer, Slick Airways

THIS is the story of one shipment out of many. Shipments of this sort are becoming increasingly routine to the carrier of airfreight. They constitute an increasing percentage of total volume, and Slick, for one, believes that the potential of uncrated business has scarcely been scratched.

Company after company, and, in fact, industry after industry, is swinging to uncrated airfreight movements, now that they are learning of the savings involved, as did, for instance, the shipper in this airfreight story.



Under that padded exterior stands a Mass Spectrometer, one of science's most delicate and complex machines. Here, wrapped only in furniture-pad type covering, the Spectrometer is being loaded aboard one of Slick's all-cargo DC-6A Airfreighters.

If, at the turn of the century, some fearless observer had predicted any direct connection between a scientist's findings in the then obscure field of spectrography and the now prevalent method of freight shipment by airplane, such an observer would have—and with considerable justification—been regarded as a harmless lunatic or a rabid Jules Verne science-fiction fan.

Time and events have proven, however, that the presentday link between Consolidated Engineering Corporation of Pasadena, California, world leaders in the design and manufacture of Mass Spectrometers and Slick Airways. Inc., domestic airfreight carriers, can be directly traced to the research work over half a century ago, of scientist F. W. Aston of London, England.

It was at turn of the century that Mr. Aston was able to harmonize fundamental principles of mass spectrography to measure isotope abundance and determine masses.

But it was decades before world need demanded that these principles be further reduced and made usable for analysis of complex mixtures.

Then in 1938, Dr. Harold Washburn of Consolidated Engineering started work on the development of a mass spectrometer for soil gas analysis and its subsequent application to solve problems of the petroleum industry.

In 1942, the first commercial instrument of its kind was delivered to the Atlantic Refining Co. Since then nearly every major oil company has purchased one or more of these precision instruments as have chemical companies, universities, government and other research foundations.

With the advent of war, mass spectrometers were in demand by many government projects, particularly in the atomic energy field. Since the war there has been increased demand for them from the fields of chemistry, petroleum, medicine and biology.

Fundamentally, the Mass Spectrometer takes any of the unknown gases or liquids which are introduced into it and literally sorts out the molecules of each element in the composition, weighs them and records the findings on a photographic piece of paper. This entire analysis is done in a matter of minutes where other types of chemical analysis to accomplish the same identification would take many hours—even days.

Since the analysis records are permanent they may be filed for future reference.

That, briefly, is the background of the Mass Spectrometer as developed by Consolidated Engineering Corporation, which also produces other highly technical and scientific measuring devices; recording oscillographs, amplifiers, leak detectors, titrilogs and associated equipment.

All of this equipment presents a problem in shipping. All of it is delicate, complicated and most of it heavy and bulky . . . and that's where Slick Airways fits into the story and picture.

Loading and shipping engineers of the airfreight company combined forces with Consolidated's engineers with some startling results.

First, was in the elimination of excess weight. One bold slash had the effect of reducing a usual 2500-lb. shipment down to about 1750 lbs. This was done by entirely discarding the huge, rugged wooden crates, which in themselves, add considerable weight to each shipment. These rugged crates, vitally necessary to protect these delicate instruments in either van or rail shipment, are not necessary in airfreighting methods, inasmuch as the humping and jarring occurring in surface transportation are eliminated. And the instruments are not handled nearly as much, being placed on an Airfreighter in Los Angeles and removed from the same plane and delivered to the customer in the destined city. This crating-packing factor alone more than compensates for the difference in air over rail costs.

Substituting for the heavy wooden boxes or crates is a furniture-pad type of cover, made to slip over the instruments and held in place by two canvas belts. This, plus a wood shipping pallet on which the instruments rest—to make handling possible with a fork truck—is the only packaging used for air shipment by Slick. The pad and pallets are returned by the customer for re-use over and over

This saves both time and money. Time in packing and unpacking and money in man-hours and material.

(Continued on Page 29)

VOL. 21

SEPTEMBER, 1952

No. 3

INCREASE

YOUR

Airfreight Growing Fast Official Sure of Future

MONTREAL—As the aviation industry grows, air cargo has, for the past several years, shown an ability to increase more rapidly than passenger traffic. Such was the observance of Dr. Edward Warner president of the International Civil Aviation Organization. Dr. Warner noted also that the industry is still primarily "a passenger-carrying business," but he does believe that the time will come presently when "the world's total air cargo traffic would equal the passenger traffic."

These observations, made by ICAO's president, seem to echo the current opinions of those people most intimately connected with the swistion industry.

3-Way Transport Built

VILLACOUBLAY, FRANCE — Breguet, one of France's two non-nationalized aircraft firms, has brought forth its biggest effort—the Type 76 Deux-Poats. This is the huge double decker that can be used as either an all-cargo carrier, passenger or a combination cargo-passenger plane.

as either an all-cargo carrier, passenger er a combination cargo-passenger plane. Built largely by hand labor because labor is so cheap—production on the scale of Lockheed or Consolidated Vulkee would be prohibitively expensive—the Type 76 allows for simultaneous loading at the side and rear of the plane, similar in manner to Boeing's Superfreighter.

TWA Serves Delegates

CHICAGO—By special arrangement with Trans World Airlines, delegates to the Republican Convention here were able to receive their hometown newspapers within a few hours after presstime. Daily flights brought in over 1200 copies of 46 newspapers from 27 cities across the country. TWA arranged for reah pickup service at the airport and for immediate delivery to the delegates at either their hotels or at the convention hall. Thus the GOPers knew in relatively short time the reactions of the folks back home. Similar plans were put through by the airline for the delegates to the Democratic Convention.

HELICOPTER FLIES THE ATLANTIC



This is the final and largest end of a Bell D47-1 helicopter being loaded abourd a DC4 for its flight to Belgium. Since helcopters don't normally make transoceanic flights under their own power, they have to be disassembled and flown as freight. Once loaded, there was still enough remaining space in the DC4 for the lactuation of 4500 pounds of tractor parts. This makes the third helicopter that Subena Belgian Airlines has beught in the U. S. and flown across the Atlantic for its mail service in and around Brussels.

Saves Imperiled Rodents

PEARL RIVER, N. Y.—During the heat wave that recently gripped the eastern seaboard, an air conditioning unit in one of the Lederle Laboratories buildings broke down, endangering the lives of thousands of experimental animals. These animals—rate, mice, chicks, guinea pigs, etc.—were particularly valuable, representing years of research that would have been lost as the overside temperatures continued to sear.

outside temperatures continued to soar. After some search, Lederle located a new unit at the Westinghouse Electric Corporation in Boston. This, however, was the only unit available, and it was consigned to a firm on the West Coast. The situation was hurriedly explained, and the unit flown here from Boston. American Airlines did the carrying. The unit proved too large for the usual cargo-passenger combination transport, and AA arranged for an airfreighter to ferry the cooling unit to

Air Ship Milk & Magazines

CARACAS—The discovery of iron ore in Venezuela gave rise to a colony of enterprise-minded Americans who have established their homes here in order to develop the resources. Mostly, they have been receiving their household goods by airfreight, and recently, Chicago and Southern Air Lines flew down a huge shipment of 3000 pounds of powdered milk in its. Speedpak, that cance-like ped attached to the bottom of a Constellation for carrying airfreight.

Cas has also been instrumental in making airfreight deliveries of Cartelles, the Havana magazine that now appears on the newsstands in several South Americancities at about the same time that it does in Havana. Cartelles took to airfreight for just that reason—to get the publication out on the streets in widely dispersed cities all at the same time. Now it appears in Havana at nine a.m. and at Caracas an hour later.

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Mr. A. Tee Presents FACTS and FIGURES

PRITISH OVERSEAS AIRWAYS Corp.: The first net profit for a fiscal year has been reported to the amount of a \$750,000 surplus accrued from April 1, 1951, to March 31, 1952, as contrasted with the loss of \$12,782,000 for the previous fiscal year Airfreight in this period rose 14.9% to 5693 tons, and mail carried rose 26.6% to 2827 tons. Occupied space in BOAC's aircraft was registered at 65.7%, an increase of 10.1% during the year.

Flying Tiger Line: For the nine month period ending March 31, this airfreighter showed an increase of \$5,277.940 in gross revenues over the same period the year before. This amounted to a gain of 48%. According to Robert W. Prescott, FTL's president, "Substantial revenue increases were experienced in all phases of the company's operations." For April, this carrier reported airfreight revenues of \$433,000, an increase of 23% over the same month last year. This figure, Cussen added, represented the strongest gain of the current year, with the entire first quarter of 1952 chalking up an increase of 12% over the same period last year. Adequate proof, certainly, that airfreight revenues are on the climb.

Northwest Airlines: During April, this carrier showed a net profit of \$284,337 after taxes and adjustment for flood losses and the sale of aircraft. Flood losses came to about \$200,000 at NWA's overhaul base at Holman Field in St. Paul. Comparing this April with last April, airfreight revenues came down from \$316,647 to \$308,151 while air express revenues rose from \$52,207 to \$68,890. Mail revenues dropped considerably from \$808,106 to \$597,698. Freight ton miles flown, however, during April were 1,148,560 as compared with only 883,541 flown last April.

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Pan American Grace Airways: The first quarter of 1952 turned out to be the best quarter in Panagra's more than 23 year history. Payloads and load factors continued high, claimed E. G. Bern, the line's vice president and sales manager, foreseeing that 1952 will continue to be a record breaking year for the airlines.

Pan American World Airways: In 1953, claims this carrier, it carried more overseas airmail (495,000,000 pieces), more overseas passengers (1,287,000) and more overseas air cargo (77,540,000 pounds) than any other airline in the world. Cargo ton miles increased 24% during the year, trailing revenue passenger miles by only 1%. These expansions were achieved with an increase of only 8% in revenue plane miles flown, added Juan Trippe, Pan Am's president.

United Air Lines: Mail and air cargo set records for this carrier during April. The former rose 34% above the previous April, and airfreight climbed 12%. Air express, however, was off 6%.

U. S. Airlines: For the quarter ending March 31, net earnings of \$27,811 were recorded on operating revenues of \$390,894. This, said James A. Wooten, the cargo carrier's president, was the first profitable quarter since the airline began back in 1940

Viewing it in the light of these statistics, air cargo is setting new high records in 1952.

Aid to Shippers Printed

CHICAGO — Shippers by air wanting simplified and localized airfreight rates will find the new "Air Freight Memorandum Tariff" quite to their liking. Put out by United Air Lines, and covering this carrier's 11 major areas on its coast-to-coast system, the booklet contains an alphabetical list of general and specific commodities as well as minimum charges, rates, rates per pound, optional pickup and delivery charges. These handy little books are available to shippers at all of UAL's major district sales offices.

Fighter Plane Lifts Cargo

FARMINGDALE—Even fighter planes are carrying cargo these days. Latest of the cargo carriers is Republic Aviation's F-34, which had been adapted for the job by the 31st Fighter-Escort Wing. The cargo hold is actually an external fuel tank padded and supplied with safety straps to hold its cargo anug. To date, this improvised cargo hold has carried tubing, valves, fittings, couplings, bulletin kits, gaskets, brackets, and hardware. The cargo hold may not be large, but it's serviceable.

CAB Denies Agreement

WASHINGTON, D. C.—The application of Pan American World Airways and Chicago and Southern Air Lines for an interchange of equipment agreement that would provide one-plane service from Chicago to Mexico City has been denied by the Civil Aeronautics Board. Approval, explained the CAB, would place the two airlines in full competition with other airline service from Chicago to Mexico, namely that of American Airlines and Braniel International, even though the latter has been unable to obtain permission from Mexico's government to operate in that country.

Another consideration, claimed the Board, was that the U. S. has been negotiating with Mexico for a bilateral air transport agreement, and that the "public interest demands that nothing should be done which might restrict that latitude of action which we should enjoy in such negotiations." The only dissenter was Member Josh Lee, who felt that the interchange agreement is not adverse to the public interest. Lee noted that "there is ample traffic to support the proposed interchange and that Pan American and Chicago & Southern would realize additional net revenues from this service, which would reduce their dependence upon the Government for mail compensation."

El Al Opens Canada Office

MONTREAL—The opening of a new office here that will serve as both a cargo and passenger agency has been announced. El Al Israel Airlines, in making this announcement, pointed out that this city is the third city on the North American continent in which El Al has an office, and the first in Canada. The other two are located in New York and Los Angeles. Actually, the airline is represented in 22 cities throughout the world.

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Reduced Rates Held Necessary For Future Air Cargo Growth

SANTA MONICA-In just eight years, according to an economic and equipment study conducted by Douglas Aircraft Company, air cargo will increase to six times its present volume. This deduction was based on a rate decline to 12 cents per ton mile, which, Douglas claims, will be the probable rate by 1960.

A steady decline in direct operating expenses will also contribute to air cargo's growth inasmuch as operating expenses are closely correlated with increasing payload size. Past observations have shown that the larger the plane, the higher its ratio of payload to empty weight. Douglas adds, however, that increasing payload can lower cost only after fully devel-oped engines are available. Although this

conclusion was based mainly on experience with passenger aircraft, the same principle,

says the company, "will apply even more forcibly to airfreight operators in their early period of growth."

the above is there a mention of speed. Since

oceans and continents can be spanned over-

night, it seems that increased speed will

contribute little to the growth in air cargo

volume. If speed has already attained its

maximum usefulness, it appears correct to

state that the only area from now on that

will directly influence air cargo growth lies

in the reduction of rates. Future speed in-

creases, maintains Douglas, "can only aid

air cargo business directly if they result in

lower ton-mile operating cost." Yet turbo-

prop power "can open up a new era of prof-

itable operations" for air cargo. To do this,

airframes will have to be built for the 500 mph speed and the 40,000 feet operating

variety of reasons, the most outstanding being that the depreciation charge would be considerably higher on an exclusive

all-cargo carrier than on the converted passenger type (like the DC-6A, for example). The DC-6A, maintains the firm, if

designed solely for airfreight would cost

over twice as much as it does at present.

Depreciating the two prices over a period of seven years, the direct operating cost for the special airfreighter would be 8.2

cents a ton mile, and for the other only 5.8

Getting into the future again, Douglas

Says Douglas, "As airfreight

feels that by 1960, airfreight business will be about two thirds the size of passenger

rates continue to decrease . . . it is not

improbable that the market for cargo aircraft may one day exceed that of passenger aircraft." Should that prediction come true,

and there is ample indication that it might,

then it is not improbable either that the

It is interesting to note that in none of

Airport at Plant Helpful

ALLENTOWN-The long trip from city to airport is eliminated when the airport stands right next door to the factory. There aren't many firms that enjoy this advantage, but Air Products, Inc. does. The factory was able to load one of its oxygen generators from virtually the production line directly into a waiting C-74 cargo transport, and send the equipment skyward with virtually no delay.

Able to produce 1000 cubic feet of exygen per hour, the generator was loaded in three sections from the factory. The plane belonged to the Military Air Transport Service, and the generator was installed and in operation 72 hours later. Reason the factory and the airport are so close together is that the factory is housed in what had once been the wartime plant belonging to Consolidated Vultee.



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ANA May Halt Service

SYDNEY-Stressing the fact that it cannot compete with government owned Trans-Australia Airlines, Australian National Airways has threatened to go out of business.
The idea of a merger between the two airlines as a possible solution was frowned upon by the government, which felt that a monopoly would result of the country's main air routes. Instead, the government has offered certain solutions that are now being considered by ANA. These are:

1-A 10 to 15 year agreement guaranteeing security of tenure to ANA in full competition with the government line.

New flying equipment to be supplied 2—New nying equipment to be supplied under charter by the government to ANA.

3—A 'body' representing both airlines to settle difficulties concerning routes, rates, timetables, and freight charges.

4—Substantial reduction in air route charges imposed by the Department of

Civil Aviation.

While ANA is considering the above, it is also continuing with its Air Beef lift, which at present is helping to alleviate the devastating effect of the recent great draught on Australia's cattle industry.

Fly Berries for Promotion

ALBUQUERQUE - Fresh strawberries, tons of them, were flown here from Arizona by Frontier Airlines as part of a special promotion campaign put on by Big Bear Super Markets. Tying in air cargo with merchandise for promotion purposes is an old stunt (see BOXCARS IN THE SKY) but always an effective one. The exact tonnage flown was not disclosed.

altitude wherein turbine engines become **AIRFREIGHT** The All-Cargo Plane Douglas has not gone into the building of a commercial all-cargo transport for a FORWARDERS

Emery Air Freight Corp: As part of this firm's nationwide expansion program, Frank H. Wildman has been promoted to acting manager of the Dayton, Ohio office. Formerly operations supervisor of the Pittsburgh office, Wildman has been with Emery only since 1949.

Intra-Mar Air Freight Corp: Both this firm and Intra-Mar Shipping Corp. have been ordered by the Civil Aeronautics Board to cease and desist from operating as international airfreight forwarders without appropriate authorization from the Board. Both companies have agreed to the order, which came as a result of proposals of settlement submitted by the two

E. L. O'Reilly Company: Two prootions have recently been announced by the president, Edward L. O'Reilly. These concerned Andrew Bires as air cargo manager, and John P. Lewis, as assistant export traffic manager.

Republic Carloading and Distributing Co.: IATA has appointed this outfit as an official airline agency empowered to solicit airfreight for the airlines. Being IATA-approved, Republic can now offer shippers who have used the firm's surface transportation services its airfreight facilities as well. This new appointment, said Republic's president, William R. Mote, will enable it to offer completely rounded transportation service for freight.

special all-cargo transport will also appear. FTL Signs Agreement

SEATTLE-Alaska Airlines and The Flying Tiger Line have both concluded an interline agreement. The former carrier serves this city as a co-terminal with FTL. With this agreement, shippers are now provided with another direct link between Alaska and the United States. Cargo shipments can fly over the joint systems of the



A VIANCA: Formerly with Pan American World Airways, H. Max Healey was named the new vice president in charge of commercial operations for this affiliate of Pan Am. Healey has been with Avianca since 1947, starting as assistant to the president. In his new assignment, he will have charge of IATA and ICAO relations, and relations with the CABs and governmental agencies of other countries. Contractival arrangements with other carriers, supervision of Avianca's operations under bilateral agreements in effect between Colombia, which the carrier mainly serves, and other nations, and the company's insurance program as well are all part of his new job.

California Eastern Airways: Engaged in the investment securities field for 28 years, and a partner in a San Francisco investment firm, Douglas S. Reed has been elected a director of this airline. At the carrier's annual meeting, all other directors were re-elected, it was announced.

Chicago & Southern Air Lines: Assisting in the legal department now is Frank F. Rox, who will handle all legal matters at Memphis. Rox replaces W. T. Arthur, who has moved up to the position of vice president operations for the company.

The Flying Tiger Line: The man responsible for the creation of the United Nations site in New York City, William Zeckendorff, has been elected to the board of directors. Said the new member: "I am very optimistic on the future of freight by air. . . . I think this new form of property movement is entering a very prosper-ous field and I am happy to be associated with it." He is also president of the Hoboken Manufacturers Railroad.

International Civil Aviation Organization: Officers elected at the recent Sixth Session of the Assembly can truly be said to come from the far corners of the earth. Elected president was John Paul Barringer of the United States. Brazil's Col. B. M. Amarante, and Iceland's A. Kofoed-Hansen were elected vice presidents as were Dr. R. Sugoto of Indonesia and E. Bisang of Switzerland. Barringer, incidentally, is Director of the Office of Transport and Communications policy of the State Department of the United States of America.

Northwest Airlines: For more than 12 years director of publicity and public re-

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lations, Joseph A. Ferris has switched jobs. No longer with the airline, he is now the vice president of Doughboy Industries. Ferris' duties will concern the new national program of public relations involving all divisions of the company.

Pacific Northern Airlines: Robert O. Kinsey is now the assistant to the president of this firm. Prior to attaining this position, he had served as Director of the CAB's Alaska office until September of last year, when he resigned to enter private business.

Panagra: Conference #1 is the traffic conference of IATA in the western hemisphere, and it was held at Buenos Aires this year. Unanimously elected chairman of the conference was Douglas Campbell, vice president and general manager of this carrier who has been with Panagra since 1935.

Pan American World Airways: Robert L. Hamill at a recent meeting of this carriers board, was elected a director of the company. His interests outside of aviation are varied, Hamill being a partner of Sanderson & Porter, a director of Mercantile Insurance Company of America and a trustee of The Metropolitan Life Insurance Company of New York.

Trans World Airlines: The positions of operations director, European Region, and operations director, Middle and Far East Region have been consolidated. Director of this new post (whereas formerly he had been director of only the former) is W. L. Trimble. Despite the extension of his post, Larry, as he is known, maintains his headquarters in Paris.

Can Fly 34-Ton Payload

SEATTLE—Payloads up to 34 tens are possible on the new Stratofreighter, KC-97F, that Boeing has delivered to the Air Force. This is the tenth model in the C-97 class, and it comes equipped with new, improved Pratt & Whitney Wasp Major engines, that give the huge freighter a speed of 350 mph. To be used by the Strategic Air Command as a multi-purpose cargo and troop transport, the double-decked KC-97F can carry 134 fully-equipped troops, or 79 litter patients together with supplies and attendants, or, as noted before, as much as 34 tons of cargo.

Aga Khan's Horses Flown

NEW YORK—Twenty horses belonging to the Aga Khan have arrived from Ireland. These yearlings were offered for the first time to the American public in August at Saratoga. Flown here by KLM Royal Dutch Airlines, the horses were sent in shipments of 6, 6, 5 and 3.

DC Notes Air Cargo Gain

WASHINGTON, D. C.—Air cargo volume has been increasing considerably at the National Airport here. Recently, a furniture consignment weighing 20,000 pounds passed through here on its air trip to Bogota, Colombia. Pan American World Airways handled the shipment. In 1951, over half a million pounds of airfreight was processed at this airport, a total bound to be passed by the end of the current year.

Second Largest NY Hanger To Be Taken Over by FTL

NEW YORK—Within the coming year, the largest hanger in the local area here, with the exception of one at Idlewild, will be built at Westchester County Airport. Costing around \$2,000,000, the hangar will be used mainly by The Flying Tiger Line for the handling of airfreight.

Actually, two-thirds of the new 750 foot hangar will be used by the all-freight carrier, the remaining space having already been rented to corporate tenants. The hangar will be divided into three bays, each 250 feet long and 150 feet deep. A two-story lean-to at the rear will run the entire hangar, providing office space on the upper floor, and shop and storage space on the lower. Besides using the hangar as its New York terminal and east coast maintenance base, FTL will also provide storage and maintenance service for the corporate and executive aircraft occupying the rest of the hangar. Of these latter craft, Sinclair Oil Corp. will occupy one-sixth of the hangar space while Johns-Manville, U. S. Steel and Olin Industries occupy the rest.

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It Had to Be . . .

• Helicopters are still making news with their versatility. Consistently, they are proving adaptable to virtually every air transportation need, and it was only a matter of time before someone would use the "eggbeater" for executive travel. This latest development, oddly enough, coincides with the sending of what is believed to be the first civilian helicopter to Japan. Hiller Helicopters, in California, have resumed commercial deliveries, and the sale was made to the Sangyo Keisai Shimbum, newspaper and publishing company of Tokyo and Osaka. The three-place aircraft will be used for executive transportation as well as for news-gathering and photographic work. For other executives who might find the helicopter useful, Hiller is able to build a limited number for commercial and export buyers.

More About Transports . . .

• Executive transports are being used by an ever-increasing variety of firms. This sample round-up of executive aircraft that have recently gone through the shops of AiResearch Aviation Service Company for work gives a fair picture of that variety. The Morrison-Knudsen Company of Idaho wanted an 8000 hour overhaul and installation of a new executive interior for its DC-3. Two Martin B-26's belonging to the Tennessee Gas and Transmission Company of Texas were brought in for overhauling and the installation of executive interiors. A Lockheed Ventura, owned by Dresser Industries, of Dallas, wanted the same type of work. And Morrison-Knudsen also wanted an executive interior and special paint job for its Aero-Commander, the personal type plane whose wings sprout from the top of the cabin rather than from near the floor.

Airport Hotel . . .

• Flying businessmen are already using the new 62 room hotel that has opened up as part of the Greater Pittsburgh Airport. They are finding it convenient for use prior to early flights, or for arriving at night and enjoying a good sleep before going into the city for that early morning conference. The start, perhaps, of a new idea, it certainly adds comfort to business travel.

Flying Bakers . . .

• Sales last year were over \$35 million for Omar, Inc., which supplies bread, sweet rolls and other bakery products to over 3000 separate communities. VIP's at Omar use their own plane, in this instance a Cessna 190, for getting around to the bakeries and to and from business meetings in general. Engineers and construction people have been heavy users of the plane as well. Plane cost is prorated to all departments on a use-it-or-not basis, and generally, they use it. Air transportation has come to Omar to stay.



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AIRDOM by Richard Malkin Consulting Editor Air Transportation

FORTUNE has been running a series of excellent articles entitled, Selling in Today's Economy. In the fourth of its articles, the following point is made:

"The U. S. selling apparatus is the greatest tribute to the customer the world has ever known. To come up with products the customer will like, manufacturers spend millions each year on product research and design; to whet his appetite, they spend at least \$3,000,000,000 advertising to him; to close with him they maintain battalions of salesmen to move the products from factory to wholesaler and on to the retail store, where the whole great machine comes to focus—at at the last two feet of counter between the customer and the sale. And here, right now, the whole apparatus is grinding to a halt."

In the case of airfreight sales, the "countcr" between the shipper and the airline representative is just as narrow,

To follow Fortune's outline, let us assume that a manufacturing firm in St. Louis produces a brand new lawmower. It is a good-looking lawmower, but not a betterlooking one than many others in the market. But the manufacturer believes he has a superior product, or at least one as good as the best available. He confers with his sales managers and advertising men, and together they come up with a fair-sized program for the advertising and promotion of the new lawmower. The copywriter for the advertising agency bends to the task. After a number of false starts, he comes up with just the right slogan and copy. The artist goes to work, and before much more time is wasted the whole business of advertising production is set. It's only a matter of days before publication date.

Concurrent with the advertising splurge, the manufacturer's sales force rolls up its sleeves and goes to work. Orders come in from every part of the country. As fast as St. Louis receives them, so are they ship-

But there's a bottleneck-and that bottleneck is located right behind the counter where the retail salesperson makes his habitat. For, at this point in the chain of events, an important question arises: has the salesperson been convinced by the manufacturer's advertising? Chances are that if the salesperson is not convinced of the lawnmower's outstanding efficiency, or if his attitude is merely noncommittal, the grasscutter manufactured by our friend in St. Louis will not be sold. The customer will be left on his own to make his own choice among several brands of similarappearing machines with equal advertising strength behind them. In a nutshell, it is the man or woman behind the retail counter who has the power of providing that little extra shove which makes the difference between the sale of one brand and the sale of another.

Now, let's examine this approach insofar as airfreight sales are concerned.

The air carrier has an established and advertised freight program, ranging from a vice president or a manager in charge of such business to asles representatives whose sole job is to interest traffic men and other pertinent company officials in the shipping services of the airline paying the legmen's weekly salaries. The latter are laden with a wide variety of airfreight paraphernalia, the better to convince the recalcitrant shipper that airborne cargo is here to stay and is economical, too. It is here that the airline legman becomes the equivalent of the retail salesperson talking across the "counter" to the shipper (who, in this case, becomes the counterpart of the consumer).

Often the bottleneck exists at this juneture—just as it does with the retail salesperson. If the airfreight rep is not wholly familiar with the subject of airfreight, as such, he has two strikes on him before he opens his mouth to speak. If he is that type of salesman who doesn't actually believe in airfreight, you may as well count three strikes and call him out. If he is that sort who runs off at the mouth in his descriptions of the latest-model airplanes (including speed, wingspread, engine horsepower, and everything else, in which the shipper is as interested as a Tibetan lama in the population of Deaf Smith County, Texas), you may as well say goodbye to the sale.

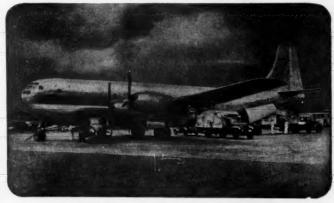
I mentioned these three categories of

I mentioned these three categories of negative airfreight salesmen in print about a year-and-a-half ago; and after investigation of the situation, I find it still exists in more than just a few instances. There are quite a few notable exceptions. With respect to the latter, I believe the heavy volume of freight hauled by their companies areas, with adequate loudness.

panies speaks with adequate loudness.

Then, too, there are some air carriers who (at least in their news releases) boast (Continued on Page 19)

Air Cargo Insurance



MINING STRATOFREIGHTS

WHEN air cargo moves at three miles a minute—and every minute means money—then air cargo insurance service must move at the speed of flight, too,

But, as in aviation itself,—speed and precision in insurance service require years and years of practical experience and a world of knowledge. And a mind open to change!

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SEPTEMBER 1952-PAGE 17

BOOKS

PIROM our one living ex-President comes the second volume of his personal recollections and accomplishments. Simply titled THE MEMOIRS OF HERBERT HOOVER, 1920-1933, and subtitled, The Cabinet & The Presidency, the book takes us through one turbulent era and leaves us at the beginning of another. Such things as feeding Europe, the League of Nations, disarmament, reconstruction, etc., are all characteristically handled by the author in his easy and illuminating style. Clearly a memorable book . . . Larger this year than ever before, the new, revised and up-to-date CANADIAN TRADE INDEX 1952, is again available. This year there are 1102 pages of facts concerning manufacturers, financing, price quotations, exporters and other pertinent information about the Canadian industrial scene. The business cards of about 236 firms are also given in this giant volume in classified form. (Canadian Manufacturers' Association, Toronto, Canada.) . . . Not a book, but a small volume of exceptional value is HOW SHIP BY AIR IN CORRUGATED BOXES. The newest information on the

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helps in estimating the maximum sizes and weights suitable for air shipments. How to ship auto parts, baby chicks, sea foods, and the like make the book helpful to all air shippers. (The Hinde & Dauch Paper Company, Sandusky, Ohio. Copies available on request to the company.)... THE RETAIL INVENTORY METHOD AND LIFO, by Malcolm P. McNair and Anita C. Hersum combines an exposition of retail merchandise accounting, the

historical development of the retail method and the main applications of Lifo, a state ment of computation and procedures, and a detailed examination of the problems in the retail method and under Lifo. The authors' analysis of retail applications of Lifo is based on a decade of study and discussion. Authoritative in every respect, the book is complete, readable and important. (McGraw-Hill Book Co., 330 W. 42nd St., NYC. 446 pages; \$7.50.) . . The first of the Cambridge Aeronautical Series, W. J. Duncan's THE PRINCIPLES OF THE CONTROL AND STABILITY OF AIRCRAFT presents a fuller study of aerodynamics than any other book written so far. This book, and in fact the entire series, are a result of experience gained in advanced teaching, which has led to the collection and arrangement of much research, the results of which will be found only in this book and the books that are to follow in this series. Definitely a worthwhile project. (Cambridge University Press. 384 pages; \$8.)

AMC Cans Clothing

SHELBY, OHIO—Canned clothing, or rather clothing packed in standard commercial drums of 15, 30 and 58 gallon capacity, have proved ideal for air as well as surface shipping. Primarily in use by the Air Materiel Command here and at Maywood, California, this new wrinkle in clothing packaging offers better protection against the elements and pilferage and is excellent for storage purposes. Furthermore, the same can may be used again and again, and being standard, can be procured without difficulty.

Canned at present are the 195 quartermaster-type items—uniforms, shoes, underwear—that airmen use. So far, AMC is canning clothing only for overseas shipment, but this may be extended to other areas. In all cases where the drums were used, the items enclosed arrived in better condition, and without the need for additional folding, wrapping or pressing, than clothing more conventionally packed.

Packaging officials claim that it will be some time before this idea reaches full swing. Thought has also been given to the idea of canning parachutes for export.

Makes Film on Air Cargo

LOS ANGELES — Film actor James Stewart is now appearing in a film for Slick Airways. This documentary, "Wings for Industry," to be shown to trade groups, service clubs and schools, helps dramatize the tremendous effect that airfreight has

had on the national economy.

Slick, incidentally, has sold its prototype DC-6A. The all-cargo plane had been in constant operation for the past 14 months, and was sold as part of the carrier's program to standardize all 4 engine equipment on production model DC-6As. These are a bit larger, and they carry about 5000 pounds, more payload, says Slick, than the prototype model. Three more of these air-freighters have been ordered for 1953 delivery, and a replacement for the prototype will be delivered in 1954.

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PAGE 18-AIR TRANSPORTATION-Air Commerce

New Cargo Office Opens

NEW YORK—For the convenience of the many shippers in the financial sector of the city, British Overseas Airways Corphas opened a district cargo office at 95 Pearl Street. The new office consists of 2000 square feet of ground floor space, plus basement, and it replaces completely BOAC's former cargo reception office at midtown Manhattan. Besides adding to the convenience of air shippers in this neighborhood, the new office provides virtually direct access from Manhattan to International Airport via the Brooklyn-Battery Tunnel. Elbert H. Swensen is in charge.

AIRDOM

(Continued from Page 17)

a freight program, but who are too timid to promote it to any extent. To go a step further, there are a few among them who give every impression of apologizing for accepting freight; as though a case of automobile accessories or a rack of dresses were a necessary evil.

were a necessary evil.

Everybody these days—well, nearly everybody—seems to be in accord with the concept that the future will show freight providing the air carriers of the world with most of their revenues. But there's a peculiar attitude, which should have disappeared years ago, but prevails even in these days of flying saucer scares. And that attitude can be summed up something like this:

can be summed up something like this:
"Freight as a No. 1 moneymaker? No, 1 can't see it. If it comes, okay. There's nothing I can do about it then, can I? But I'm

ag'in' it!"

BEA Sees Brighter Future

LONDON—By the following year, British European Airways expects to be 'out of the red' and showing a profit. According to Peter Masefield, the carrier's chief executive, "we shall eliminate our deficit by 1953/54 and start out on a soundly profitable basis in the following year." The deficit referred to by Masefield involves the loss of about \$45,000 a day during the recent fuel shortage plus the cost of introducing two new aircraft, the Discovery and the Elizabethan.

El Al Gets Added Traffic

TEL AVIV—As a result of air agreements signed between the governments of Israel, Italy, France and Switzerland, El Al Israel Airlines has acquired additional air traffic rights in three European cities. These transactions affect the routes between Zurich and Athens, Zurich and Paris, Rome, Athens and New York, Paris and New York, expanding the carrier's service.

C & S Lists Odd Cargoes

HAVANA—Ballet costumes may look light and airy, but when packed into trunks and cases, they add up to some impressive poundage. Recently, 6000 pounds of such costumes were flown from here via Chicago and Southern Air Lines to Caracas; an unusual shipment, but just about anything goes via airfreight these days. This same carrier also lifted 144 pounds of yo-yo string that came from a Chicago manufacturer and went to Venezuela.

Winner of TWA's Annual Aviation Writing & Picture Competition

Richard Malkin's



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- 2 Handy little chart which gives air parcel post rates for all eight postal zones in the United States.
- 3 Speed...in Photo and Fact, another of the interesting booklets depicting the particular values of air express.
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- 5 Pictorial progress during 50 years in the life of the American Box Company, manufacturers of wooden and wirebound boxes and crates.
- 6 Sample back number of the American Import & Export Bulletin, giving

- news of developments in the foreign trade industry. Covers Customs, Commerce. Agriculture, Treasury, and State Departments thoroughly. Reports on changes in laws, rules, regulations, etc.
- Tillustrated and fully described in a six-page folder are facts for the ship-per and packer interested in strapping, seals, tensioners, sealers and accessories. The products are for banding all types of packages, bales, boxes, palleta.
- 8 Bulletin 5191, illustrates and briefly describes the principal units in an expanded line of industrial trucks and tractors. The complete line is graphically presented in this attractive, four-page folder.
- 9 Here's a handy gadget being distributed by a prominent freight forwarding firm. It's a combination key ring and auto license holder which fits neatly into

- 10 Both entertaining and educational, a 20-minute color and sound film is available to clubs, schools, business groups and television stations. It shows how business airplanes help industrial leaders save time. Highly informative.
- 11 A new eight-page specification booklet listing the advantages of the new fork lift trucks. Dimension drawings show their maneuverability; detailed specifications allow comparisons with other trucks. Complete in every detail.
- 12 How To Help Your Post Office Help You, a new booklet, copiously illustrated and designed to help accelerate postal service whenever necessary. It will prove timely and valuable to parcel post shippers as well as to users of regular letter mail.
- For those whose trucks are a vital part of their business, a new, large, 16-page booklet is ready to help keep them rolling. Fifty-one illustrations with explanatory text will show you how to prevent truck failures and save on overhaul expenses.
- 14 Literature describing a new-type gummed tape dispenser which is operated like a telephone dial, measuring and cutting the tape accurately while moistening it.
- A catalogue and descriptive booklet dealing with the classification, design and operating requirements of instrument bearing is now available. Intended for instrument engineers only. Booklet AIB gives descriptive details and dimensional data for a full line of instrument ball bearings. Highly technical and illustrated.
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Complete information concerning five new fork lift trucks is now available for all shippers interested in improving their line of trucks with an eye toward speed, efficiency and maneuverability.

Condensed catalogue #11 offers a 2020 complete line of scales for every industrial need. It's a handy, illustrated reference for scales that record weights from 1/64th of an ounce to 300 tons.

Ouite often shippers turn tourists, and if they've a mind to go to South America, Braniff has put out a sumptuous, multicolored folder that should prove helpful. Beautifully executed to whet anyone's appetite for South America.

A job study showing how an Albany manufacturer of cleaning products increased plant capacity 400% with a carefully planned integrated handling system.

Of the Cuff, an informational magazine produced by a leading manufacturer of materials handling equip Well illustrated. ment.

Descriptive brochure on the brand new book, Boxcars in the Sky, which tells the thrilling story of commercial and military air cargo, from A to Z. This volume is the first of its kind published anywhere.

28 Your Foreign Shipping Handbook, a descriptive booklet, in color, issued by the Foreign Traffic Department of American Express. Introduces in graphic form the various services of the company's international shipping setup.

Gourmet Guide to Good Living in South America—a 55-page hook-let which presents the business air trav-eler with all the necessary know-how re-lating to foods, restaurants, hotels, clubs,

What to Expect from Wirebounds 31-an attractive booklet which presents the construction principles of wire-bound boxes and crates. Includes 24 case studies

The Picture Book for Parcel Post 32 Shippers — an illustrated booklet explaining economies in metered parcels,

TWA's Air Freight Fact File, which includes route map, air freight office phones, rates, etc.

Consular Documentary Requirements and Charges, as prepared by

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Cargo Bags Installed

DENVER-To increase its air cargo carrying capacity, Frontier Airlines has had installed in all its planes a new cargo bag that snaps to the floor. Although the bags, which are located in front of the front seats, do not greatly increase the cargo capacity, it is still significant that cargo is demanding and getting increased attention from the airlines.

Frontier, by the way, recently flew more than 10,000 sets of caps and gowns for high school commencements throughout its system. Another item was a grizzly bear air shipped from Yellowstone Park to the Bronx Zoo. This bit of airfreight took to the air without trouble.

one of the leading air freight forwarding firms. Valuable for international shippers.

Latest issue of Industrial Review which highlights the advantages gained through the use of a certain specialized packing tape.

Latest issue of a valuable magazine which includes many useful tips on the use of steel strapping in packaging shipments. Well illustrated.

37 A chart showing step-by-step in-structions for sealing Vs and W cartons with tape to meet Government specifications. Ten steps are depicted. Includes sealing a carton's innerliner and outer seams, and covering and protecting carton labels. A handy reference.

Peggy and Mado, an unusual comic-type booklet which does a terrific job explaining how a four-week vacation can be spent in France.

Latest issue of Handling Materials Illustrated which offers actual case histories to those who are engaged in the handling of various types of shipments.

Here's the very latest issue of the New York State Airport Map and Directory. This is a revision of the last map offered in these columns.

Just about everything the air-freight shipper has to know about 44 tariffs. This new, revised list is designed to simplify the finding of facts necessary for shipping. Approved by the CAB.

MAILBAG MEMOS

The case of EAA is attracting a lot of attention in the US—and in Europe—and the article [Airfreight Shuttle] in May's issue of your much read publication has helped . . . and we have received quite some mail on account of it.

George B.Kiely Traffic Advisor European-American Airlines, Inc.

AIR TRANSPORTATION is always read here in the Traffic Management Department with interest and profit, and the June issue has been especially interesting.

D. W. C. Becker, Director Traffic Management Department LaSalle Extension University

LaSalle Extension University

Recently, I had the pleasure of reading a copy of your magazine which devotes itself to "air cargo." The impression created by this reading was such that I would like very much to read future copies. Therefore, it is requested that future issues of "Air Transportstion" be mailed to me regularly.

R. H. Transportsting Trans R. H. Transportsting Trans

New Route OK for FTL

BURBANK—Success of the Flying Tiger Line's venture into the Pacific North-west, where it has recently instituted all-cargo service (Am Transportation, June, 1952), has been greater than expected, said FTL's vice president, George T. Cussen. Load factors on flights out of Seattle, Tacoma and Portland "have exceeded 50% of available cargo space," he stated, adding, ". . . we anticipate a steadily-in-creasing volume of traffic as airfreight users become acquainted with the low cost and cargo capacity of our ships." Among the items comprising the outbound traffic from this area are: aircraft parts, power saws, fruit, animals, furniture, human remains, nursery stock, clothing, military freight, furs, flowers, and office machines.

Fly 455 Tons in 49 Days

EDMONTON-Within only 49 days, and averaging just over six hours each day, a total of 1,020,400 pounds of airfreight was moved. Broken down, this meant 455 tons of airfreight carried in 300 hours of flying. Associated Airways Ltd. used Bristol type 170 Freighters for this large scale hauling.

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PAGE 22-AIR TRANSPORTATION-Air Commerce

Add Airfreight Forwarders In Air Carriers' Tariff

WASHINGTON, D. C.-Emery F. John son, tariff publishing agent for scheduled airlines engaged in airtreight transportstion, announced a new move in tariff publication consisting of a revision of their own Restricted Articles Tariff. As of the latter end of June, the airfreight forwarder, or so-called 'indirect air carrier,' has been added as a full participant to the tariff. With this addition, the tariff now serves all classes of air carriers engaged in the

transportation of property.

Said Johnson, "The direct air carriers have long felt that a single standard of uniformity was desirable in connection with the transportation of articles which are restricted and/or are subject to packaging requirements and limitations. . . . The single publication makes for ease and convenience to the shipping public; uniformity of application helps to insure that Part 49 of the controlling Civil Air Regulations is observed, and that the beachts of the scheduled airlines' own research and consulting service are available for the ultibenefit of safe shipping."

mate benefit of sale shipping."
Full title of the document is, "Official
Air Transport Restricted Articles Tariff
No. (ATB No. 6—CAB No. 6)," and it is
comparable to publications in effect for
surface transportation. Its main distinction is in the addition of categories applicable for air transportation purposes.

CAB OKs TWA, PAA

WASHINGTON, D. C.—The North At-lantic route patterns of both Trans World Airways and Pan American World Airways have been extended until 1959.
Granted by the Civil Aeronautics Board and approved by President Truman, the renewed certificates nevertheless contain certain modifications, such as the inclusion for Pan Am of Nice on its route to Marseilles and the exclusion of Nice for TWA, etc. Deferred for the present was action to be taken on Pan Am's application for renewal of its route east of Calcutta, and on TWA's application for renewal of its route east Bombay and extension of its route to Tokyo.

Among other decisions rendered by the CAB was the denial of European-American Airlines' permission to start an all-cargo shuttle service over the Atlantic.

More Cargo Planes Ordered

SANTA MONICA—Reporting the pepularity of its DC-6A, Douglas Aircraft Company proudly announced that 23 of these all-cargo air transports have been delivered or ordered. Most recent of the airlines to order this plane is Pan American World Airways, with the order of three. Pan Am, by the way, is the sixth airline to order the DC-6A

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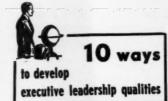
CHICAGO—This summer there will be little or no seasonal slack in air cargo. United Air Lines has, in fact, announced a 40% increase in daily cargo capacity during the hot months as compared with the same period in 1951. Thus a total of 558,000 ton miles will be available daily for airfreight on the carrier's all-cargo or combination cargo-passenger planes.

Airmail Volume Increases

WASHINGTON, D. C.—For the Post Office fiscal year 1951, the scheduled domestic airlines of the United States flew 1,069,034,236 letters and cards. This staggering figure represented a gain of 26.8% over the previous year's total, and contrasted favorably with the increase of 5.3% for mail carried by the railroads during the same period. However, the railroad's in-crease covered 16,492,934,239 pieces of mail, substantially more than the airlines carried.

Within this same period, according to the 1951 Cost Ascertainment Report recently released by the Post Office, these same airlines flew the mail about 451/2 billion pound miles, a gain of 17.5% over 1950. Payments to the airlines for carrying the mail came to \$39,407,519, and for the railroads, \$35,270,973, representing increases of 5.3% and 33.8% respectively.

According to the Air Transport Association, airmail volume has continued to in-crease in 1952. The first quarter revealed an increase of 20% above last year's figures, but at the same time, reports ATA, Post Office payments to the airlines have dropped more than 18%.



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by James F. Bender 291 pp, 51/2x8, \$3.75

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Offices in principal cities

CERTIFICATED SCHEDULED AIRFREIGHT CARRIED

Hops Go 'High' with ANA

MLLBOURNE—Beer drinkers should be interested to learn that over 100 tons of hops were flown here recently from Hobart. The choice to use airfreight transportation was made by Carlton and United Breweries who discovered that by air shipping the hops, their period out of cool storage was reduced to a minimum.

Australian National Airways whose Freighters carried the hops, also figured recently in the hauling by air of 17 stud bulls, some weighing more than a ton each; 7000 pounds of mutton-bird flesh, five tons of fish, one ton of furniture, 3500 pounds of confectionery, two horses, and again 1450 pounds of hops. All this was the result of one day's air cargo operations.

Fly Steel and Dresses

BURBANK—Sheet steel, to the extent of 22 tons were airshipped in one instance by Slick Airways into the Detroit area during the steel emergency. The steel came from the Fontana Mills of Kaiser, and it flew to the Pontiac Division of General Motors in two lots. One lot, weighing 15 tons was carried aboard a DC-6A, while the remaining seven tons followed on board a C-46.

This same carrier also arranged for the entrants in the Women's Transcontinental Air Race to have their luggage "follow the girls." Specially designed garment bags, suitable for airfreighting, carried the fineries for the festivities that took place after the race. These two examples alone show the wide range of articles that can be safely and quickly airfreighted.

Fly Windows for Cuban U

HAVANA—More than 600 custom-built aluminum windows were flown here from Miami for use in the new Marta Abreu Central University in Santa Clara. Almost three cargo Clipper-loads flown by Pan American World Airways made up the 27,492 pound shipment, which consisted of \$25,000 worth of special frames and 10 gigantic sections of more than 20 feet in length.

CAA Issues New Film

WASHINGTON-For individual aircraft owners interested in keeping their planes in flying order, the Civil Aeronautics Administration has brought out a new film with sound that will help do the job. Called, "An Ounce of Prevention," the 34 minute color film emphasizes the benefits of preventive maintenance as practiced by ranchers, dusters, flying clubs, businessmen and other airplane owners. Produced by the CAA Office of Aviation Information for the CAA Office of Aviation Safety, the film may be borrowed by schools, clubs and other organizations from various CAA offices throughout the United States and in Anchorage and Honolulu.

Saves Money on AirCargo

LOS ANGELES—More and more shippers these days are finding increased economy in airfreight transportation. The latest shipper to do so was, at the time of this writing, the Pacific Outdoor Advertising Company. This firm, which used to send its presentation material—charts, models, viewer boxes, etc.—by either air express or excess baggage, found that by reclassifying its material as advertising material, considerable economy was thereby effected. Compared to the \$77.40 previously paid on sending 100 pounds to New York, The Flying Tiger Line's air-freight rate is \$14.70. To Chicago, the rate had been \$55.00, now the cost is only \$10.50. A simple matter of reclassification has brought about more savings for still another user of air transportation.

Robinson Gets Extension

ITHACA—A seven year extension has been granted to Robinson Airlines of its temporary certificate as a local service air carrier. In granting this extension, the Civil Aeronautics Board also authorized the addition of new air service to Watertown, N. Y. as a terminal point. The CAB also commended the carrier for altering its capital structure by the converting of debenture bonds to equity capital.

Korea Gets Goats and Pigs

SAN FRANCISCO-Restocking and introducing new bloodlines in livestock world is a function of the United Nations. In line with this policy, Seaboard & Western Airlines recently flew 100 Californiabred Saanen goats from this city to Pusan. Delivered to breeding farms maintained by the Korean government, the shipment was valued at \$10,000, exclusive of the value of the 80 pigs that were also carried. Since the start of hostilities, about 50% of Korea's goat stock was depleted. This ship-ment, and others to follow, will contribute greatly to replenishing the meat and milk producing industries in that country. Flying time took about 50 hours, and the animals arrived in excellent condition.

TAL Cites Role in Korea

OAKLAND—In its service contract operation for the Military Air Transport Service, Transocean Air Lines has readered some valuable service. In the first 21 months of the Korean War, TAL flew a total of 10,872,712 miles, reported the air-liner's president, Orvis M. Nelson. Also in that time, the carrier air lifted 9,960,095 pounds of military cargo, 7112 litter patients and 20,535 military personnel in 673 flights across the Pacific. During one phase of the hostilities, recalled Nelson, when MATS called for a maximum effort, Transocean kept each of its planes in the air an average of 17½ hours per day.

Helicopters Fly TV Parts For Showing Atomic Blast

LOS ANGELES—Few people realized, when they saw the first live telecast on an atomic blast on their TV screens, that they were able to see it due to a few members of the Marine Corps and some Sikorsky HRS-1 helicopters.

Television equipment in preparation for the 'show' was lifted by helicopter to a mountain peak 10 miles away from the spot where the blast would be set off—10 miles being as close as the Atomic Energy Commission would allow. For more than a week, Marine Corpmen lived and worked on the mountain and three other peaks while helicopters brought them their food, gasoline, spare parts, evacuated three technicians who became ill and flew in replacements. Needless to say, helicopters have added flexibility to the fast and versatile means of transportation, air cargo.

F you're a carrier, shipper, forwarder or traffic man

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Milk Cargo Flown by TCA

NOVA SCOTIA-Housewives at Sydney share their milkman with their neighbors only 202 miles away at Stephenville, particularly when that milkman happens to be a Trans-Canada Air Lines pilot flying 5170 pounds of fresh milk monthly between these cities. Through airfreight facilities, a dairy in Sydney supplies merchants in Stephenville with fresh milk three times a week. This supply is further augmented by road and rail shipments from Corner Brook, the combined methods of transportation keeping the island community in fresh supply with milk and dairy products. Special waxed cardboard containers hold the milk in flight. TCA aircraft flying this route are jocularly re-ferred to as 'flying milk saucers.'

Airline Signs More Pacts

NEW YORK-In addition to the interline agreements signed with both KLM and Aerovias Guest (Air Transportation, July, 1952), U. S. Airlines has signed two more. These are with Scandinavian Airlines System and Brazilian International Airlines. The all-cargo carrier's agreement with SAS permits the movement of airfreight on one airwaybill for points on the international operations of SAS and cities that U. S. serves under its certificate in the southeastern and Gulf areas of the country. Its second agreement allows a similar movement of airfreight on several points in Latin America.

Next Month:

The 10th Anniversary

Issue

AIR TRANSPORTATION



Panagra Helps Wounded

LA PAZ, BOLIVIA-In appreciation of Panagra's efforts to bring vital blood plasma and medicine to the injured of the recent revolution that had flared here, the Blood Donors Group of this city sent a letter expressing its sincere gratitude. The letter, received by Douglas Campbell, the airline's vice president and general manager, stated: "We at the Miraßores Hospital... feel it our duty to express publicly the deep gratitude which your generous assistance has accomplished; and to praise the company which . . . does not hesitate to bring much needed medical supplies within a few short hours. . Thanks to your quick and generous re-sponse many Bolivian civilian wounded were saved in the recent revolution."

FTL Adds Pickup Service

BURBANK-A fleet of eight trucks will be operated in the metropolitan areas of New York City and Philadelphia by the Flying Tiger Line, announced M. G. Montgomery, the carrier's director of traffic. With the extension of such service, the airline now operates its own trucks in seven cities, five of which are on the West Coast. Use of carrier-operated trucks for airfreight delivery and pickup was begun by FTL experimentally last year, eliminat-ing the need for contract trucking operations for "greater flexibility of service."
"With our own trucking operations," stated Montgomery, "we can serve spe-cial or emergency pickup and delivery demands more quickly and at an over-all cost which has proved reasonable."

DC-4 Service Expanded

NEW ORLEANS-DC-4 service to the capitals of Central America has been enlarged by TACA International Airlines. Faster through-schedule operation on flights from this city to Mexico, Guatemala, El Salvador, British Honduras and Nicaragua are now practiced on northward and southward flights due to the extended use of the DC-4 Skymasters.





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PAGE 26-AIR TRANSPORTATION-Air Commerce

PROGRESS IN CONTINENTAL'S CARGO SERVICES

by Freeman Fish, Cargo Sales Manager, Continental Air Lines

The progress and growth of air shipping over Continental Air Lines routes and planes has kept pace very favorably when compared with the nation's airline industry.

For example, comparing the years 1950 and 1951, the airfreight gain of the industry as a whole for 1951 was about 10% while the increase at Continental Air Lines came to 17.2%. Air express boarded on Continental's planes increased 36.8% and airmail boarded increased all of 72.2%.

Indicating a continuing upward trend in 1952, airfreight revenue on Continental Air Lines through April compared with the same period of 1951 shows a 45.7% increase, air express pounds



boarded shows a 27.2% increase, and mail pounds boarded shows a 76.3% increase. From the above comparative figures, it is plain that Continental Air Lines' cargo business is experiencing rapid growth, and is becoming an item of increasing importance in the air-line's annual financial picture.

While Continental Air Lines employs no full-time cargo salesmen and has no flights solely devoted to the transportation of cargo, all of the airline's traffic and sales representatives make every effort to generate additional cargo business on their regular sales calls. The airline, of course, transports freight, express mail and parcel post on all of its regularly scheduled passenger flights. The airline designs an airfreight memorandum tariff which is distributed to leading industries and businesses along its 34-city system.

Commodity items carried by air-freight on Continental Air Lines and the volume represented are as follows: (1) Machinery, machinery, parts, tools, electrical equipment, leather and rubber goods for industrial use, 35.02%. (2) Flowers, 16.74%. (3) Newspapers, magazines, books, blue prints and miscellaneous printed matter, 12.72%. (4) Wearing apparel, dry goods, household



Freeman Fish, sales promotion and cargo sales manager, has nine years esperience with Continental Air Lines. He has served in traffic and sales and flight service posts at various cities along the airline's system. Chief among these posts, in addition to his present position, have been those of district traffic manager at Albuquerque, Pueblo and Denver, and manager of passenger service at the Denver general offices. Fish has a number of years of experi-

Fish has a number of years of experience behind him in the retail sales business too, prior to joining Continental. He resides in Aurora, Colorado, near Denver and has three children.

goods and furniture, 7.58%. (5) Shipments of mixed merchandise by Sears, Roebuck and Company, 6.07%. (6) Live animals, poultry and poults, 3.43%.

(7) All items not classifiable elsewhere, 3.26%. (8) Blood and food samples, 3.13%. (9) Drugs, chemicals and products for medical and medicinal use, 2.75%. (10) Luggage and personal effects, 2.42%. (11) Film, 1.95%. (12) Cameras and photographic supplies, 1.40%. Other commodity items representing less than 1% each toward total airfreight volume are tropical fish, furs, human remains, musical instruments, jewelry and costume jewelry, stationery and stationery supplies, shipments of mixed merchandise by Montgomery, Ward & Co. and surveying instruments.

Recently, huge increases of pharmaceuticals from Kansas City to Denver and the west have been experienced from the Upjohn and Massengill drug manufacturing companies.

Many items used directly or indirectly for the tourist industry in the vacation areas along the Rocky Mountains here are also shipped via Continental Air Lines. For example, a tourist may drive his automobile to colorful Colorado for his vacation, but when his auto breaks down and needs scarce parts in a hurry, like as not the parts will arrive in Colorado from the east via Continental Air Lines airfreight or air express service. So Continental figures to be of service to the vacationist one way or another, and to the shipper too.



THERE'S MONEY IN AIRFREIGHT

HEN, in 1831, two green cod first appeared at Greenland, they were so rare that the natives preserved them in salt and sent them to the Copenhagen Zoological Museum. No one at the time realized that these two lone fish represented a change, but since 1924, green cod have become plentiful at Greenland, and the entire cod fishing center has moved 300 miles north.

Scientists who study the ocean know the reason for this change. They will tell you that the cod thrives in warmer waters, and that the first two to reach Greenland signified that warmer ocean currents were moving northward. Those

fish were clearly the sign of a coming change.

Quite recently, at Colon in Panama, cargo revenues topped passenger revenues at a time when passenger revenues had themselves substantially increased. It was the first recorded incident of that sort, reported Pan American World Airways, and that, like the fish that swam to Greenland, is a sign of a coming change.

Scientists of any sort—ocean or any other kind—need offer no explanations concerning this development. The answer is all too simple. Air cargo transportation is no different from surface transportation except for the type of vehicle used. Just as freight pays most of the bill in surface transportation, so will it also pay most of the bill in time to come for air transportation as well. The handwriting is on the wall: there's money—big money—in airfreight!

Take air cargo revenues for 1951. That year they went over 91 million dollars. Not bad for an industry that only "got its wings" in 1946 (not counting the war years). And

1952 is doing better.

Since a part is usually equal to the whole, a few samples should suffice to prove that there's money in airfreight. Slick Airways, TWA, Seaboard & Western, the Flying Tigers and many others have all recorded substantial increases in their cargo carrying activities. United Air Lines reported that while the number of airmail and air express ton miles flown during June had dropped 4 and 5% respectively from May's totals, airfreight had gone up 10%. American Airlines claimed that its airfreight revenues for May hit the all time high of \$838,000, with traffic showing a 40% increase over the previous May. Prior to this new mark, the record had been set only the month before, when airfreight revenues registered \$798,578 for April. Especially significant is the fact that May's record was set in spite of the petroleum strike that had curtailed operations. As AA's R. E. S. Deichler said, the company considered its cargo services to shippers as important as its passenger service. and therefore curtailed both proportionally instead of dropping airfreight altogether. The result of such clear thinking was a clear-cut victory for the airline.

The Flying Tiger Line reported a 12% gain for just the first quarter of this year as opposed to the same period in 1951. British Overseas Airways Corporation reported an airfreight increase of 14.9% for the same period. Slick Airways recorded average load factors for May at 93.1%. and a profit of \$55,500 after taxes. This is spite of the oil strike that dropped this all-cargo carrier's average aircraft utilization time from 8.7 hours per day down to 6.7 hours per day. Offsetting the oil strike somewhat, Slick claims, were the increased airfreight rates which accounted for this

high revenue figure.

And Trans World Airlines came up with the amazing fact that in 11 years its cargo activities had increased

Take air parcel post as still another example of the way that airfreighting has become an integral part of the business picture. Born back in 1948, air parcel post has now grown to where its latest figures show that package business comprises 41%—or nearly half—of all airmail carried by the scheduled airflines of the United States.

As reported in this publication in June, Lockheed is devoting a generous portion of its activities to the development of all-cargo aircraft and cargo loading devices. Lockheed intends to publish soon its study of the extent to which airfreight business will grow. By 1955, volume will rise to 1.2 billion ton miles with present planes and ground equipment, or 3 billion ton miles provided carriers invest in new transports, new freight terminals, newer handling equipment. In the meantime, its Super Constellation, converted for airfreight carrying has proved popular, and so has Douglas' cargo carrying version of its DC-6A. To date, 23 of this latter type have been ordered, proof again that air cargo volume is making increased demands for expanded service. And Boeing has recently come up with a new Stratofreighter, the C-97F, that boasts a 34-ton payload. Since these air



Quick loading of air cargo via ramp to DC-4. This is a familiar scene at major airports all over the world; for air cargo has made deep inroads into the thinking and practices of hippers and businessmen everywhere. Cargo varies from the small packages shown here to massive multi-ton units.

craft involve the expenditure of millions of dollars, the only accurate inference we could draw from the fact is that airfreight truly warrants such prodigious expenditures from both the manufacturers' and the carriers' points of view.

Further illustrations would only prove repetitious. They would all show that more and more property is becoming airborne as time goes by, and that more and more aircraft are being used in whole or in part for airfreight transportation. Thus it appears true to state that if more property is becoming airborne, more shippers are using airfreight. The exact number of shippers throughout the world who use airfreight regularly as opposed to those who use it periodically has never been determined. Still their name must be legion in view of the huge totals and percentages and revenue that are accrued so regularly by so many airlines. And from this it is again safe to deduce that these shippers find airfreight transportation safe, practical, and certainly profitable, and that they look to airfreight for greater accomplishments and more profit.

Get set for
the BIG issue of the year
NOVEMBER'S
AIR TRANSPORTATION

AN AIRFREIGHT STORY

The definite amount of cash saved offers a very interesting and profitable picture. Here is a striking and typical example; Consolidated Engineering Corporation usually make shipments in units of six. By Slick Airfreight described above, the total weight is 10,500 lbs. The total cost from Burbank to Idlewild Airport is \$1,669.50, which includes pick-up in Los Angeles and delivery to the customer in New York.

These same six units, crated and shipped via first-class rail express would weigh 16,500 pounds . . . three tons more! The express charges would be \$2,864.46 . . . and to this must be added the labor and material cost of cratingapproximately \$100 per unit-another \$600.00, bringing the total surface shipping charges to \$3,464.46. Exactly \$1,794.00 more than the cost of airfreight.

It is possible to make uncrated shipments by express, but the charge for the required special handling of these delicate instruments is three times that of the regular first class express rate, which makes this method not economically feasible at all.

The prime advantage of speed is of the utmost consider-

Hours in transit instead of days, even weeks.

Overnight delivery to any point in the U.S., plus minimum of packing and handling has made what was once a very complicated transportation and shipping problem a matter of simple daily routine.

Not the least in importance is the outstanding record of results

In a period of a few months, Consolidated Engineering Corp. has shipped 42 Mass Spectrometers, with a total value of around a million and a half dollars to consignees all over the nation via Slick Airways, with no item of damage in shipping!

And that's the 20th century climax to a persistent research scientist's findings back in the dim, dark nineties.

MARKETING

(Continued from page 4)

- II. Advantages contributing to better service for the consumer.
 - a. Makes products accessible to consumers not reached before.
 - b. Affords the consumer a greater variety from which to choose.
 - c. Provides the consumer with a better quality product.
 - d. Faster turnover provides fresh, up-to-date merchandise.
 - e. Style merchandise is quickly made available in localities distant from style centers.
 - f. Facilitates the securing of items of an emergency nature.
 - g. Protects quality of goods in
 - h. Price stability is favorably effected through the rapid transfer of goods into localities where demand is high.
 - i. Enables increasing sales volume which may lead to lower prices for the consumer.
- III. Advantages contributing to economies in marketing.
 - a. Extends sources of supply; encourages competition among suppliers.

- b. Enables a reduction in inventories and permits a smaller investment.
- c. Reduces storage requirements. d. Makes possible a faster turn-
- over of stock. e. Facilitates the marketing of style goods and removes some of the risks in retail buying.
- f. Reduces the number of markdowns necessary.
- g. Makes possible lighter packaging.
- h. Reduces damages in transit.
- i. Reduces waste from spoilage.
- j. Permits insurance economies. k. Reduces cancellation of orders
- for the product. l. May eliminate warehousing to
- some extent. m. May encourage price stability and therefore effect economies.
- n. An increase in sales volume may bring about economies in purchasing and handling.

The advantages thus classified derive from the use of air shipping to facilitate the marketing of a product. Where the advantages are sufficient to overcome the rate differential, the airplane is being used. It is probable that many shippers not using air cargo service would find it desirable to do so if proper consideration were given to final costs. Many of the marketing advantages to be cited here are founded upon final cost considerations.

Marketing Advantages Discussed: Broader Markets

The airplane has resulted in broader markets. It has joined with the faster forms of surface transportation in causing trading areas to become increasingly larger during the twentieth century. The plane serves to transport passengers a greater distance to markets, and it also enables producers to carry their goods into markets previously inaccessible. A market is limited by the producer's ability to deliver a satisfactory product and, in some cases, by his ability to service the product after delivery. The problem of servicing the item after installation is especially important in selling certain durable goods. In the marketing of perishable products the ability to deliver the goods in satisfactory condition in the time specified is the primary factor. The cargo plane has made a significant contribution in broadening the market for perishable goods. The following quotation stresses this point:

(Concluded on Page 34))

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- Large or small shipments to Panama*, Colombia. Ecuador, Peru, Bolivia, Brazil, Chile, Argentina.
- Call Panagra's U.S. Sales Agent, Pan American World Airways, or your Freight Forwarder.



ONLY U.S. AIRLINE WITH 24 YEARS OF EXPERIENCE IN SOUTH AMERICA

PRAIRIE AIRLINE

(Continued from Page 6)

flight leaves Edmonton at 5:30 p.m. arriving in Winnipeg at 2:50 a.m. Augmenting the two full length flights are several local flights between such centres as Edmonton, Calgary and Lethbridge and Regina, Yorkton and Winnipeg.

Of course Edmonton and Calgary, like Winnipeg, are on the transcontinental service which terminates in Vancouver to the west and at Montreal in the east and cannot be considered actually a part of the prairie airline for which most TCAers have a genuine affection.

The real story of the prairie circuit is being made daily by the incredible young men who operate the way stations. It is a story of intense hard work in almost a dozen branches of an industry that calls for specialization in each of its many sides. The boys on the prairie do them all, and they do them with a minimum of acclaim. In fact many of them gradually get the feeling they are the forgotten men of the business but without their breed the whole system would collapse.

Take for instance a typical day with Russ Alexander who manages the station at Brandon with the assistance of Nick Kosowich the Operations Agent. They comprise the entire staff and are responsible for EVERY function necessary to the ground operation of the DC-3 flight.

The first flight Russ will see on any day is Eastbound 150 out of Regina. It arrives at Brandon at 12:20 p.m. Now, if for a minute you are thinking he has nothing to worry about until the flight arrives listen to this: Russ, who is a pleasant-faced young man in his early 30s, possessor of a droll sense of humor and admitted (by himself) to be one of the hottest square dancers in the entire province of Manitoba, must be up before breakfast to check on and report for the Department of Transport, the weather conditions at Brandon. This is fed on the DOT circuit and is available for all planes over the route.

And for the remainder of the day, a similar report is filed every hour, a report that shows dew point, wind velocity, cloud formations, available ceiling and barometric pressure. Should the ceiling be below 1,000 feet, Russ inflates a "met balloon" and watches its airborne avrations through a theodolite.

Sandwiched between the time brackets formed by the weather checks, Alexander must ticket passengers, answer the telephone, check aircargo invoices, visit the local travel agent who (thank heaven) does most of the actual tick-teling of passengers, function as a PRO for the Company, forward the traffic dispatch and act as traffic representative. Most irksome chore, he says, is the compilation of his monthly report. He simply dislikes doing it.

Of course at flight time he must be on the deck to run out the passenger



ramp, unload the baggage, prepare the manifest and load sheets, gas the aircraft (if necessary), and assist in the handling of any infirm passengers. In winter—and in Brandon the temperature may drop to 50 degrees below zero—you may find Russ "topping-up" the de-icer fluid or removing ice from the wing edges.

Prior to the landing, he has checked the wind velocity and instructed the pilot as to which runway he should use. And when the aircraft is ready for take-off, he gives the all-clear.

In all these activities, Alexander has the help of his colleague Kosowich, unless, of course, it is Nick's day off. Since the Company works a five-day week, there are always two days out of each seven when either Nick or Russ go it alone.

They will tell you that it can be nicely handled as long as everything checks, but if, due to weather, there is a delay in the arrival of the flight, or if perhaps the station is completely over-flown, their troubles really begin. And since they are the closest ground point to Rivers, Man., and alternate for Winnipeg-bound North Stars, it is their responsibility to race the 30 miles to Rivers should a trans-continental flight be forced to use it. That is the sort of thing they don't like to think about.

Russ Alexander has been with TCA for six years, and he has worked in Winnipeg and Montreal. He has travelled over most of TCA's routes and like many of his fellow employees is in a position to be a bit sophisticated

This announcement is under no circumstances to be construed as an offer to sell or as a solicitation of an offer to buy any of these securities. The offering is made only by the Prospectus.

NEW ISSUE

July 31, 1952

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about his travels and about the places in which he has lived and worked. But if you ask him where he has had the fost FUN in the Company he will grin at you and say: "Why Brandon. of course. It isn't the biggest place in the world but the people are grand and we've honestly had the best time of our lives right here." (Russ is married and has a small daughter.)

In his spare time, Russ is active in the Kinsmen's Club, the Chamber of Commerce and the Brandon Flying Club. And of course he is a ringtailed heller at the Square Dance Group.

Alexander is typical of the prairie airline elite, a group that owns G. A. (Gordie) Sanders at Yorkton, J. E. (Jimmy) Ames at Swift Current, and the irresponsible J. J. (Pat) O'Flynn at Medicine Hat. They know what it is to freeze to the bone in the winter and swelter in summer temperatures that rise to more than 100 in the shade, all for the sake of a tradition of service that they themselves are building every day.



CARGO GIANT

(Continued from Page 7)

approved on the last day of that year. Five years later, in November, 1947, the giant craft first roared skyward and cruised over southern California for one hour and two minutes before landing. The plane had become airborne at a speed of 115 mph and a run of only 3000 feet. Since then it has demonstrated its ability to operate from moderate length runways, landing at one time with a full load on a runway 5900 feet long. In May, 1949, the plane was accepted by the United States Air Force. On September, 1950. it began its operational evaluation program.

Inside the XC-99, two stairways connect the upper and lower cargo decks. Two electrically operating sliding doors in the bottom of the fuselage can open during flight to permit the dropping of cargo. Four electric hoists, operating on overhead rollers that extend the length of each cargo hold make loading and unloading easy. Loading time for the XC-99 takes just over three hours, which time, however, may easily be shortened to one sixth that length

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with the development of new techniques in packing and loading.

Pre-loaded cargo bins appear to be the answer to that problem. Fast loading is possible with the consolidation of small, high density packages in bins. First attempts at such loading proved highly successful. These bins were all packed into the upper deck of the plane at Kelly AFB, and the lower deck was used for larger items such as guns, engines and the like. The top cargo deck takes 13 of these pre-loaded bins which, individually, hold 4000 pounds of cargo. It has been estimated that loading a 100,000 pound capacity cargo plane built to take these bins would take less than half an hour. At present, it takes less than 4 minutes to load one bin into place. The bins are hauled to the cargo carrier on a trailer, placed under the loading hatch. raised by the electric hoist, traversed into position and fastened to the floor.

It is fair to assume that if the pressing requirements of the war hadn't needed more immediate attention, the XC-99 would have been built and ready to fly in less than five years. The transport, however, had a low priority rating during the war, and work on it was actually halted for several months for the increased production of Convair's B-24s. The company's B-32 and

B-36 bombers also had higher priority ratings than the XC-99. Quicker development of the transport, and the modifications it went through—such as the 56 inch diameter four wheel gear later installed to replace the two 110 inch wheels—probably would have put it into service that much sooner, and the lessons it has taught, and is still teaching us, would have been applied that much sooner—even, perhaps, for a commercial cargo transport of comparable size.

For the giant XC-99 is mainly an experiment in size. This plane may never be duplicated. But this plane points to the near future and the development of other gigantic 100,000 pound payload long range turboprop transports. We know already that there is a need for all-cargo transports of this magnitude. And we know also that more powerful, faster and even sturdier transports of the XC-99 type can be efficient, effective and economical.

Military needs appear to inspire army officials to continue experiments in flying cargo. Results of such experiments can well benefit commercial cargo ventures as well. We all know by now that the airfreight industry itself was an outgrowth of the war effort, for the variety of its application may not otherwise have been known



for the next 10 years, and its growth might then have been retarded. However, air cargo is flourishing today, thanks mainly to the military men who are constantly searching for bigger and better ways to send cargo skyward. Convair's giant XC-99 is evidently a huge step in the right direction.

Vital Statistics

Type Leagurance	cargo and troop carrier
	Over 265,000 pounds
	132,000 pounds
	Over 133,000 pounds
	182 feet 6 inches
Wingspan	230 feet
Height	57 feet 10 inches
Engines 6 Prat	t and Whitney R-4360-41; 3500-hp, pusher-type
Maximum speed	Over 300 mph
Stalling speed	93 mph
Service ceiling	30003 feet
Range	
Takeoff distance	5000 feet
Crew	8
Cargo capacity	100,000 pounds
Fuel capacity	
Landing gear	Tricycle (multiple-wheel)
Propellers . 4 Curtiss	Electric reversible-pitch, bladed, 19-foot diameter

PROGRESS REPORT

(Continued from Page 8)

of the costs of operating aircraft. This must be the main consideration. It is definitely not the cost of surface transportation which should induce us to endeavor to attain to this goal. Air carriers must sell trade and industry the idea that air cargo not only has to be, but indeed already is, an integral part of the sales promotion and sales schemes of business and that this can only prove to be to their lasting benefit, as well as to the benefit of aviation.

There still remain a great number of problems to be solved, however, before we can actually enter into the really big cargo market. It is important that we realize this now, for if we do, we will adopt the right attitude when these problems crop up. A great deal of investment will have to be made for the future in this respect. Adequate loading and unloading equipment at airports, together with well-planned and efficient goods sheds, are necessary to ensure a successful selling of this time element which we wish the shippers to accept as a matter of fact. It is no use being able to fly within a few hours from one town to another thousands of miles away from the first, when, at the same time, we spoil this saving of time by inefficient handling at the airports.

Customs procedure, ground transportation; documentation and working methods at airports should be more closely scrutinized. As the volume of cargo increases, its problems will equally become more pressing. Our clients will ask and expect us to solve these for them, for they will be unwilling to pay extra money for air transportation only. What they are after is to be able to get their goods in the shortest possible time from the factory to their buyers and to their ultimate customers. And this is basically the idea we are trying to sell them, as I pointed out in the beginning.

There are many more opposite points, too many, in fact, to deal with in this short article. I would just like to mention a few, however:

What type of cargo plane do we wish to have?

How can we stir up the interest of our agents/forwarders?

What about that expensive item, the small parcel?

What about through-shipment procedures?

What about combined traffic rates, rates on cubic and volume basis, the negotiable air waybill, etc., etc., etc.

These points are important enough to warrant our paying careful and close attention to them and to realize that air carriers can cooperate in these matters and that thereby a great deal can be done to promote the progress of air

ARITISH OVERSEAS AIRWAY

cargo. In this connection a great task awaits IATA. The abolishing of these barriers will greatly help to develop air cargo, and if our technicians will find a way to provide us with a lowcost plane, which I am sure they definitely will, air cargo will really emerge from its infancy and grow up to manhood.

This report was printed in its entirety from IATA Bulletin, Number 15.

AIR EXPRESS

(Continued from Page 5)

services of air express has long been a close one.

Air express has traveled far in the last 25 years keeping pace with the phenomenal growth of the aircraft industry and development of the airline systems. It has proved to be invaluable in wartime as its record during World War II clearly shows. At present it is being used widely as fast, reliable transportation for delivering important defense materials. What the future will hold in the next 25 years probably far exceeds, the most enthusiastic forecasts of today. Air transportation of goods is firmly entrenched as part of our way of life and a valuable aid in completing many of the jobs that are accomplished by American industry day in and day out.

GROUND HANDLING

(Continued from Page 9)

airplane. Regular trucks for cargo hauling are also used in and around airports, and for these, one firm has devised a 'wheel-guard' that keeps rims and rings from flying off truck tires that are being serviced. The 'wheelguard,' so light and compact that it can be moved to any job or carried as standard equipment in trucks, eliminates the hazard of flying wheel parts that often do so much damage to personnel and property, by being able to be adjusted to any size tire. Thus a truck needed to carry cargo to or from the transport can be serviced quickly and safely and soon put back into use.

Safety and speed both are served by non-breakable sleeve shielded spark plug terminals with telescoping springs. The advantage of this type of sleeve, put out by J. E. Menaugh, to ceramic sleeves is that the former will not chip, break or carbon track, it is non-inflammable and can absorb temperatures of more than 500 degrees Fahrenheit. Faulty spark plugs won't interfere with airbound cargo where this new type of equipment is in use.

Safety and speed both are served by the Industrial Truck Division of the



Baker-Raulang Company, who has developed a special pallet for increasing the storage capacity of outside drum storage areas by 100%. Now that the Air Force has found that canning clothing (i. e., packing them into drums) is a suitable method for shipping them, these pallets will probably find their way onto more airports in the near future. The pallets, built with narrow wood stringers running lengthwise, allow fork trucks to stack the drums four-high instead of two, which is the usual method.

Packers know that heavy packaging isn't necessary with air cargo, and that taping a carton is generally sufficient packaging for the job. Now there is a portable gummed tape machine that can seal or re-seal cartons without moving them to the shipping room. Being portable, the Roll-on-Sealer, as it is called, brings the mountain to Mohammed, saving extra handling, which means getting that air cargo to the plane that much sooner. The dispenser rolls freshly cut tape right onto the carton, a twist of the wrist cuts the strip into just the right length, and the carton is all set to fly.

Speeding air cargo on the ground is again possible with a new rotary tag and label imprinting machine that turns out printed tags or labels at the rate of about 430 per minute, or more than twice as fast as machines currently available. A product of the American Tag Company, this new marking machine is designed for both office and factory. Shipping operations are improved and speeded up considerably, now that this necessary part of preparing freight for transportation can also be speeded up.

Most of the items mentioned here have not been designed specifically for air cargo, but since there is a phase of air cargo that necessitates ground handling, this partial list of improved machines and appliances gives indication that ground handling is being consistently geared to the greater speed and safety of air transportation.



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MARKETING

(Continued from Page 29)

Baby chicks have a life span, unattended after birth, of about 72 hours maximum. In surface transportation, the shipping area for this product is clear cut. By air, the market is almost boundless. The additional cost of air shipping is far off-set by the added volume of business and reduced operating costs. The same or similar factors apply in the transportation of fresh fish and seafood. New markets have been established for these commodities and to many people in different climes, entirely new products have been made available.

Among the products that have found extended markets through the use of air cargo are metropolitan newspapers, certain ready-to-wear fashions, and fresh produce. An important aspect of broader markets has been the extension of competition. Manufacturers of emergency goods are now able to compete over the wide areas where competition was previously ruled out due to the necessity of the purchaser obtaining the item quickly. He was often obliged to draw upon the nearest source or experience several days' delay in obtaining an item. Air cargo remedies this by bringing all sources within easy reach.

As the producer's market is broadened, the consumer's source of supply is extended. Many highly perishable sub-tropical fruits are being marketed outside the areas of production for the first time. The industrial consumer in particular has benefited from a wider source of supply made possible by air shipment. A survey of air cargo users revealed the supply problem as an important one which frequently finds a solution in using air transport. The following statement from a midwest automobile plant is typical:

All parts, materials, and supplies coming to this plant are scheduled from supply sources for delivery dates and in quantities calculated to be sufficient to maintain steady operation of the facility. Nevertheless, shipments of materials and supplies are not always received as planned. Whenever a work stoppage because of shortage of materials or parts is threatened, the help of airfreight is enlisted to maintain, if possible, the steady operation of the plant.

Meeting peak demands.

In the above case, air cargo shipping is used to meet emergency situations. The ability to meet unanticipated difficulties such as the delay in the shipment of needed materials is another of the advantages growing out of the speed of air cargo. The advantage of speed also enables producers and distributors to capitalize upon the peak demand for their products. Every merchant knows the importance of having his goods at the right place at the right time to cope with the vagaries of consumer demand. Seaboard and Western Airlines, for instance, cities examples of the ways in which air transportation has been used to meet this problem:

Three air shipments of raffia playshoes were flown from Haiti to meet an unexpected early and high demand for vacationists' summer playwear. On another occasion one importer flew over 9,000 pounds of French gloves between September and Thanksgiving to meet the Christmas demand. Another, introducing a new line of handbags, flew over 6,000 pounds in the same period. Both shippers stated that their goods were finished only hours before takeoff, and could not have reached this country for holiday buying had they depended on sailing dates.

An example of the regular use of air cargo to meet peak demands is afforded by Lerner Shops. Early in 1949, Lerner Shops began using airfreight exclusively in supplying Pacific Northwest stores from their warehouse in Denver. The reasons:

According to Lerner spokesmen, they plumped for airfreight because a two-month tryout had proved that it sharply reduced inventory, facilitated sales turnover, and enabled shops to keep pace with "runs" on any particular item. A store could, in fact, be 95 per cent restocked overnight.

In the case of food perishables, the early harvest frequently commands a premium price. Air transported strawberries may reach the market from three to five days in advance of those moving by surface transportation. The premium price on early berries may

Aids in stabilizing price.

tion costs.

more than offset the higher transporta-

Although air cargo enables the distributor to meet peak demands and, in so doing to receive a better price for his product, it also has a counter-effect in stabilizing price. The ability of the plane to transport goods to the place where they are needed with a minimum of delay serves to relieve shortages. Supply is better able to keep abreast of demand, and price fluctuations are less pronounced. The use of air shipping to move goods into areas of intensive demand is all the more important in view of mobilization and wartime shortages. In times of critical need it is necessary that goods produced be utilized to the fullest extent. The contribution of the plane to the creation of place and time utilities may assist in this respect.

Increases sales.

It also follows that the ability to move the right goods to the right place at the right time will have a positive effect on sales volume. Volume increases arise in part by taking advantage of peak demands, by stocking up-to-date and timely merchandise, and by attaining a rapid turnover. And, air cargo is able to play a part in achieving all these objectives. The following case is indicative of the role of air transportation in helping a producer expand his operations:

A Boston manufacturer of a wellaccepted, high-priced line of ladies' suits, coats and toppers, was losing business in cities beyond New York because of delays due to surface transportation. Goods were arriving at markets too late to meet peak demands. As a result, buyers had to sell late arriving stock at a markdown So they turned to local manufacturers for their supply of goodseven though these were inferior in quality. The manufacturer investigated airfreight and gave it a trial. Results were successful beyond anticipation. His old customers welcomed the return of high-quality merchandise, and airfreight gave the retailers a new promotion angle-"airsped" merchandise. The manufacturer regained his old customers and went on to open new territories never before accessible. His sales volume and profits mounted to an all-time high.

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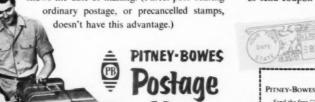
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